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WHAT OUR SCHOOLCHILDREN CAN DO TO HELP SAVE OUR BIRDS: THE WORK OF THE AUDUBON SOCIETY IN THE PUBLIC SCHOOLS: BY T. GILBERT PEARSON



LITTLE after six o'clock one July morning on the campus of the University of Tennessee, I stood near the center of a semi-circle of twenty-five school teachers whose expressions indicated a high state of excitement, and whose fifty eyes were riveted on a scene of slaughter which was going on but a few feet from them. For five minutes we had scarcely moved.

During this time the lives of thirty-two specimens of animal life had been swept from existence. The perpetrator of this holocaust was a creature known to scientists as the Spizella socialis—ordinary people call it the chipping sparrow. Its victims were small insects which but a moment before were joyously disporting themselves on the grass.

One teacher expressed surprise that a bird could find so many of these choice morsels in so short a time. She had never imagined that so many insects inhabited so small an area as that to which the bird had confined its operations. "Very well," said the instructor, "suppose all of you get down and see how many insects you can find in five minutes." So while he held the watch we all proceeded to take part in a bug-hunting contest. In this novel undertaking even the women of the class displayed a commendable zeal. When time was called it was found that one student had a credit of fourteen, another sixteen, a third nineteen and one tall young woman with glasses exhibited twenty-one insects in the folds of her handkerchief.

A stranger watching the rather remarkable actions of this band of eager early-rising teachers might have been puzzled in attempting to determine what could have induced them at this hour of the day to assemble for the evident purpose of watching the habits and activities of small birds which the average person passes without notice. They were, nevertheless, occupied with one of the most valuable studies which could have claimed their attention.

For many years the United States Department of Agriculture has been employing trained naturalists to give their time to investigat-

ing carefully the damages done to growing crops by the insect hosts which infest the fields and forests. Their observations resulted not so very long ago in a published declaration to the effect that about one-tenth of the entire agricultural and horticultural products of the United States is annually a total loss through the ravages of insects. To combat these tremendous yearly losses a wide variety of artificial agencies have been evolved in the form of liquid sprays, and today laborers putting these methods into operation is a common sight. Insects multiply so rapidly that all natural means for their destruction should also be encouraged. A Canadian entomologist states that the progeny of a single pair of common Colorado potato beetles if allowed to increase without molestation would in one summer number over sixty millions. Facts like this render important the discoveries by another group of Government specialists who have been studying the daily life of our native wild birds. These experts have come forward with statements almost as astounding as those produced by the entomologists. They tell us that of the twelve hundred kinds of birds found in North America, fully three-fifths of them depend almost wholly upon a diet of insects, and that there are comparatively few forms which do not turn to insects for at least a portion of their food. We are told too that each bird is virtually a living dynamo of energy; that its heart beats twice as fast as the human heart and that the normal temperature of its blood registers over a hundred degrees. It is a simple fact of biology, therefore, that a tremendous amount of nourishing food is necessary to the bird's existence. Vast quantities of insects are needed for this purpose.

SOME time ago a New England gentleman became so impressed by the frequency with which a pair of robins visited their nest with food for the young that his curiosity was awakened to learn more of the food consuming possibilities of the four nestlings. The day the offsprings left their cradle he temporarily took possession of them. Calling to his aid some friends who kindly undertook to dig fishworms for him, he proceeded to feed these baby robins all they cared to eat between daylight and dark. He found to his unutterable surprise that these little birds consumed in one day food to the amount of their own weight and fifty-six per cent additional. If the average size man were to eat at this rate it would require about seventy pounds of beef and eight gallons of water daily. Upon reaching the adult form the robins probably did not partake of food so greedily, but the incident serves to illustrate their gastronomic capacity in the days of youth.

Vireos, warblers, woodpeckers, nuthatches and thrushes are all

famous destroyers of insect life which preys upon fruit and vegetables. The nighthawk and certain of the shore birds are known to be fond of mosquitoes, which should commend them to the esteem of mankind. The writer once watched a pewee capture sixteen flying insects in a minute and on another occasion saw a yellow-billed cuckoo eat nineteen tent caterpillars in a space of five minutes. Two hundred and seventy-three eggs of the cankerworm have been found in the stomach of one chickadee, and the golden-crowned kinglet is a veritable Nemesis to the troublesome plant lice.

Upon the approach of winter, insect life, except in the warmer regions of the earth, usually dies or becomes dormant. Those birds which are so constructed by nature that no form of nourishment is acceptable to them except the soft bodies of insects take long migratory flights to tropical climates where they may find the necessary food in abundance. Other birds, for example, the quail, the dove and our little friend Spizella of the university campus turn for a living to the fields and open woodlands, where a bounteous harvest of grass and

weed seeds awaits them.

The farmer seems to feel that the annual supply of grass and weeds which persists among his growing crops calls for his most strenuous exertions. Were it not, however, for the thousands of pairs of little bright eyes which in the fall and winter are seeking so industriously for the weed seed out in the dreary brown fields, his labors would surely be greatly increased. One of the Government collectors shot a dove in Kentucky which was found to contain over nine thousand weed seeds. The dove probably filled its crop at least three times that day. These twenty-seven thousand seeds if left to sprout the following spring would in themselves have produced more weeds than the average farm hand with a hoe could cut down in a day. Prof. Beale, of the United States Department of Agriculture, published in "Farmers' Bulletin number Fifty-four" a statement regarding one of our "The tree sparrow fairly swarms all over the common birds. Northern States in winter, arriving from the North early in October and leaving in April. Examination of many stomachs shows that in winter the tree sparrow feeds entirely upon seeds of weeds; and probably each bird consumes about one-fourth of an ounce a day. In an article contributed to the New York Tribune, in eighteen hundred and eighty-one, the writer estimated the amount of weed seed annually destroyed by these birds in the State of Iowa. Upon the basis of onefourth of an ounce of seed eaten daily by each bird, and supposing that the birds average ten to each square mile, and that they remain in their winter range two hundred days, he arrived at a total of eight hundred and seventy-five tons of weed seed consumed by this one

species in a single season. Large as these figures may seem, they certainly fall far short of the reality. The estimate of ten birds to a square mile is within the truth, for the tree sparrow is certainly more abundant than this in winter in Massachusetts, where the food supply is less than in the Western States, and I have known places in Iowa where several thousand could be seen within the space of a few acres. A little reflection, therefore, will serve to show to the most casual observer that the wild bird life of America is indeed a valuable asset, and one worth conserving with assiduous care.

HE school teachers at Knoxville, the summer morning which started my article, were members of a group of earnest men and women whose lives were dedicated to the training of children. For nine months they had been in the classroom meeting heroically the petty trials and annoyances incident to their life work. Now during the few brief weeks of their vacation, instead of spending the time in idleness, they were eagerly seeking additional knowledge to prepare them for more valuable future service. They were learning that morning the important lesson that birds are placed on earth for a useful purpose. When they returned to the schoolroom they would teach the boys that the bird is a friend to the farmer and should not be killed nor its nest destroyed. They would teach the girls that there is something far more exquisite about the living bird than is to be found in the dull luster of its feathers when sewed on a hat, and they would arouse in the heart of the little girl a feeling of reverence for the sacredness of the motherhood and home life of the innocent birds about them.

The subject of the systematic instruction of schoolchildren in bird study on a careful scientific basis really had its origin in May, nineteen hundred and ten, when Mrs. Russell Sage sent to the National Association of Audubon Societies checks for five thousand five hundred dollars with which to inaugurate a plan of bird study in the Southern schools. She desired that a special effort should be made to arouse interest in the protection of the robin, which in the Southern States was at that time almost universally regarded as a game bird whose most useful office was performed when served in a potpie. Bird study it is true was at that time taught in many city schools, but usually the subject was given but slight space in the curriculum and there existed generally accessible to teachers but indifferently prepared material. A working plan was at once developed whereby literature, colored pictures of birds and the Audubon button should be supplied to all the pupils in a school who enrolled themselves as members of an Audubon class. Each member was required to pay a nominal fee

which, however, in no sense covered the cost of the material received in return.

During the school year which followed, the matter was brought to the attention of many of the Southern teachers and over five hundred Junior Audubon societies resulted with an enrolment of more than ten thousand children. Following the course of instruction outlined in the literature furnished the teachers, these children were taught the correct names of many of the common birds, and on field walks they learned to know them by sight. The dates when certain birds were last seen and the first arrivals in spring were noted and carefully recorded. Food in the form of suet, seeds and crumbs was put out to attract birds about the school-building and the pupils were taught that by planting sumac, elder, holly, barberry, chokeberry and other berry-producing trees and shrubs the birds would become more abundant. Bird boxes of various patterns were constructed and placed in the parks, orchards or woods where they would most likely be of service to birds hunting suitable nesting hollows. Bird study was correlated with reading, composition, history, geography and even arithmetic.

O successful did this experiment prove that the Audubon workers agreed that it was highly desirable to extend this same system into the schools of the Northern States. The fall of nineteen hundred and eleven, therefore, saw plans well under way for a much increased scope of work. During the school year, which closed the last of June, nineteen hundred and twelve, the National Association of Audubon Societies, at a cost of thirteen thousand dollars, enrolled twenty-nine thousand, three hundred and sixty-nine schoolchildren under the standard bearing the inscription "Protect the Birds." In supplying these pupils and their instructors with the necessary pictures, leaflets and outline drawings of birds for coloring, over one million pieces of printed information were distributed. Pupils have taken hold of this bird study with a zest. Many a dull or inattentive boy, who had been a despair to his teacher and parents, responded to this real nature teaching which took him from his ordinarily uninteresting studies into the great out of doors. Hundreds of teachers have written letters filled with expressions of thankfulness for the new opportunity which has come to them and reciting details of a wide variety of ways in which they have been able to make use of this plan and material for bird study. Here for example is one from Miss Beth Merritt, who teaches in a little school at Fountain City, Tennessee: "I am very glad to write to you about the little Junior Audubon class we had at school this year. We all enjoyed it exceedingly and I am

sure it did good in the hearts and lives of the little people who were members and in the bird world, too. A year ago, I invited the children of some of the other grades to join our Audubon class and we had over forty members. We had our meetings on Friday afternoons after school. The class was quite successful and we saw some direct results of its success. Several nest-robbing boys gave up that 'sport' altogether. One boy was instrumental in bringing about the arrest of some men who had been shooting song birds. This year I had the class only in my own grade—the second. Almost every child in the room joined, making twenty members. I had daily periods for nature study and language, and every other Friday we used these two periods for the Audubon class. The children were always anxious for the Audubon Fridays to come. They used often to ask, 'Is tomorrow Bird Day, Miss Beth?' and if I answered in the affirmative, I heard 'Oh, goody;' and 'I won't forget to wear my button,' and 'I wonder what bird it will be,' from every side. Rarely ever did we have an absent mark on Bird Day. After we had used all ten of the leaflets you sent us, we had lessons on some of the other birds, or, instead of a regular lesson, we went for a bird walk. I divided the class for these walks, taking ten children at a time. How excited they would get over the birds they saw. Nearly always they could identify the birds themselves, sometimes I helped them, sometimes my bird book helped me and sometimes we had to write in the notebooks, unknown. I will not try to tell you about all the good results of our Audubon class that I have noticed. The most important thing I think is that a few more children have a keen interest and a true love for their little brothers of the air. Last year a favorite pastime of a neighbor was shooting birds for his cat, and I think he was no more particular than his cat as to the kind of birds he destroyed. His little daughter was a member of the Audubon class and this spring I notice our neighbor's cat has to catch its own birds. Perhaps if the little girl can be an Audubon member another year, there will be no more cat. A mother of another little member of the class used to delight in birds' plumes, breasts or feathers of some kind on her hat. Her spring hat this year was trimmed in ribbon. I have heard several bird lovers say that they have noticed more of our common wild birds about this place than there were last year, and they believe the Junior Audubon societies in the schools have brought about this happy state. When school closed many of the mothers came to me and said that they wished to thank me for what I had done for their children along the line of nature study, especially of birds. They said that they thought the Junior Audubon class a splendid thing for their children. And I think it is equally good for the teachers.

HE coming year the work is to be done on an even broader scale. The children in Alaska will receive instruction on bird study. The United States Bureau of Education is cooperating heartily with the Audubon Association in this undertaking. A generous member of the Association has provided funds for placing in the hands of all the children in all the schools of Alaska a series of colored pictures of Alaskan birds and literature bearing on their habits and value to mankind. An agent of the Association is now on the ground making a study of local conditions, and one of America's most successful artists is engaged in making beautiful colored pictures of birds to be used in that territory. This is a highly important field for service. As the marshes and shallow grassy lakes of the Northwest are being rapidly drained, the area formerly occupied by many nesting waterfowl is thus turned into fields of yellow grain, and the breeding range of these birds is constantly forced farther northward. Alaska will ultimately be their last chief stronghold in America. Hence, the very great necessity of instructing the coming generation about the vast importance of conserving the wild bird and animal life upon which the natives and white inhabitants alike must depend largely for their meat supply for long years yet to come. This educational feature of the Audubon movement is today only in its infancy. It will grow rapidly year by year until tens of thousands of children are annually receiving this beneficial instruction and the sum total of the influence on the next generation will be both beneficial to the children and constructive for the country.

In America we have too long neglected the subject of adequately protecting our bird life and doubtless as a result in many sections we are suffering today from bitter scourges of insects. Too long the careless and thoughtless have been allowed to wander aimlessly afield and shoot the birds which caused the winds of prosperity to blow. We must teach the children to avoid the errors which we have made. It is our duty to the child, for he has the same inherited right to this knowledge that he has to stand out in the sunshine under God's blue

sky and drink in the breath of life.



PEER GYNT'S CABIN AND OTHER LOG HOUSES ASSOCIATED WITH THE HISTORY AND ROMANCE OF NORWAY: BY CATHE-RINE D. GROTH



OG cabins are probably the most primitive expression of man's desire to protect himself against the elements, aside from caves and stone huts. The earliest wooden dwellings the world over were of logs. But while in most countries they were abandoned as soon as other materials for building homes were found; in Norway, that fairy tale country of forests and moun-

tains, the log cabin has remained through the centuries the favorite type of architecture. The Norseman of Saga days—king, chieftain or serf—lived in log houses. And quite frequently the Norwegian of today does so too. But alas, as a rule, the modern structure has no more in common with its architectural ancestor of Saga days than the man of today has with the Vikings.

The log cabin is indigenous to Norwegian soil, and in its different modifications and improvements may be recorded varying changes in the customs and habits of the people. In those lonely and solitary valleys where the primitive log houses still exist, many ancient tradi-

tions still hold sway.

In Norway, at least, one cannot deny that architecture and life are in direct relation to one another. Whether man unconsciously hits upon some material improvement which, in turn, changes his view of life, or whether his changed way of thinking makes him discover new improvements and carry them out,—one cannot always say. In these Norway log houses, burnt by the sun into marvelous tints of rich red brown, set in the midst of dark green forests, one sees the imprint of a strong, sturdy folk, heavy and stolid at first, but gradually developing into a finer, more generous and noble race, with an eye for beauty as well as for utility.

Those who have traveled in Norway, if they have been out of the beaten track and have walked on soft thick moss and heather, across barren mountain tops or through pungent pine forests, will remember coming, some evening, when the sun was still high and all nature strangely quiet, to a little log chalet looking strangely picturesque from the outside. And they will remember when the door was opened, how they entered a large room whose proportions instinctively appealed to them, where the white wooden floor was strewn with sprigs of fresh juniper, and where an armful of green birch filled the fireplace, ready to burst into a pungent flame when a match was set to it.

And there, perhaps, they acquired their first fondness for log



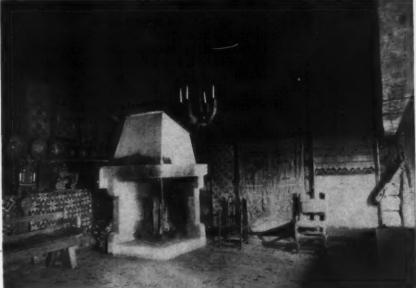
PEER GYNT, WHO WAS A GREAT HUNTER AND FISHER IN NORWAY, AS WELL AS THE HERO OF IBSEN'S PLAY, LOVED TO LIVE OUT IN THE WOODS AMONG SIMPLE PEOPLE: IN THE LATTER PART OF THE SIXTEENTH CENTURY HE HAD BUILT FOR HIMSELF IN FRON, NORWAY, A LOG CABIN OF WHICH WE HERE GIVE A PHOTOGRAPH: SOME INTERESTING LEGENDS OF HIS LIFE IN THIS SIMPLE CABIN ARE HERE TOLD FOR THE FIRST TIME.





THIS ILLUSTRATES ONE OF THE EARLIEST OF THE LOG CABINS EVER BUILT IN NORWAY: IT IS WITHOUT A CHIMNEY OR WINDOWS: THE ROOF IS OF SOD, AS IN ALL THE OLDEST CABINS: IT PROBABLY DATES BACK TO THE SIXTH CENTURY. TYPICAL INTERIOR OF ONE OF THE VERY EARLY NORWEGIAN LOG CABINS, SHOWING THE LONG TABLE AND BENCH.





THIS IS, SO FAR AS WE KNOW, THE ONLY PICTURE THAT HAS EVER BEEN PUBLISHED OF A FOURTEENTH-CENTURY NORWEGIAN LOG CABIN SHOWING THE ARCHITECTURE OF THE "MAIDEN'S BOWER" AND THE ROOF COVERED WITH DAISIES.

FURNISHING OF A FOURTEENTH-CENTURY LOG CABIN IN WHICH IS SHOWN THE DETACHED CORNER FIREPLACE: THE TAPESTRIES ON THE WALL ARE OF SIXTEENTH-CENTURY CRAFTSMANSHIP.



THIS GIVES US A VIEW OF THE INNER COURT OF A GROUP OF OLD NORWEGIAN FARM BUILDINGS, THE LOG CABINS STILL CARRYING SOD ROOFS, WITH ARCHITECTURE SCARCELY VARYING FROM THAT OF THE FOURTEENTH CENTURY.

cabins. At least that was how I grew to like them. And when the woman of the house set before me a huge bowl of thick cream and a batch of fladbrod—that thin, crackerlike bread which comes in round loaves of about the thickness of an eggshell and which is delicious when broken into bits and moistened with cream—and I heard the wind blow up against the walls, and the fire was lit and its warm glow filled the room, I felt that a log cabin was the coziest place on earth.

COUPLE of hundred years ago log cabins were the only structures seen in Norway—with the exception of the stone buildings in the cities, of course. In the course of time, they have naturally been largely superseded by the board constructions similar to those of other countries. Recently, however, log houses have become popular again, but not as homes of the people. Lumber—especially whole logs, comes too high nowadays, and the luxury of the beautiful log buildings is reserved for fashionable houses and hotels. Not only are log houses much more attractive than the ordinary frame house of clapboards and shingles, and offer many more opportunities for tasteful decoration, but they are said to be more sanitary than other dwellings, cool in summer and easy to heat in winter.

In Norway they are all made of heavy pine logs. The bark is carefully taken off and then the logs are hewed square and of the same size from one end to another. It takes some experience to notch them at the ends so that they fit exactly. The logs are usually either stained or oiled, and their rich yellowish or brownish color is in

harmony with almost any surroundings.

The old-fashioned Norway log cabin had a sod roof. It is hard to express the poetry those words should convey except to those who have seen the sod-roofed cabin. I have come across roofs that were a riot of wild pansies—where the exquisite gaudy colors nestled down into a soft moss or shone out through a veil of delicate grass, and I have seen wonderful roofs where wild rose bushes hung over the eaves. One of the illustrations shows a daisy roof, and the effect of the white starlike flowers topping off the dark brown structure is exquisitely picturesque. Some roofs produce only pasture grass, and the story runs in Norwegian folk lore—that a lazy man led the cow on the roof—the cabin was built against a hill—instead of taking her to pasture. I have no doubt but that the story is true, for I have often seen a couple of white kidlets, gamboling on the soft green housetops, while the mother goat, grave and ruminative, was tethered to the chimney.

Sod roofs are just as water tight as others—if they are laid cor-

rectly. A board roof is first laid on a house, and this is covered with a layer of birch bark. On top of this comes a layer of sod, with the grass turned down to the roof, then a rather thick layer of earth, and finally another layer of sod, this time with the grass up. The result is a most exquisite and poetical covering for the house.

TO one knows when the first log cabin was built in Norway, but it must have been about fifteen hundred years ago, at least. At first they were windowless, chimneyless things, then they gradually became light and airy, acquired chimneys and floors, and developed into one-and-a-half, and then into two-story houses, becoming the homelike abodes of enlightened people. Their development and transformation—extremely interesting in the way it touches the customs and habits of the people—is easy to understand, thanks to the efforts of Dr. Sandvig, of Lillehammer, Norway. Born in the country, he had, from his boyhood, a passion for the old homes of the peasants, and even as a child it pained him to see them set aside or torn down to make way for the nondescript buildings of clapboards which appeared in their stead. It became his ambition to collectbefore it was too late—the most typical examples of the different log cabins, so as to save for posterity, and at the same time trace the development of, the old Norwegian home.

Dr. Sandvig had no money, so he had to earn enough to support not only himself, but his ambition, and through ceaseless efforts he finally succeeded. The State bought his collection, and rewards and decorations have been showered upon him. And it must be admitted that the little village of bygone homes at Maihaugen, Lillehammer, in the famous old Gulbrandsdal, the most historical of old Norwegian valleys, forms a fascinating chapter of the history of civilization in Norway, with reference, of course, to the Norwegian peasant.

The oldest type of cabin is the aarestue, an example of which illustrates this article. This house is not very old—dating only from fourteen hundred and forty, while other types of houses had been perfected before that date. But just as today some people prefer old-fashioned things, the builders of that cabin, even at such a comparatively recent date, preferred to erect a windowless, chimneyless cabin like the ones their ancestors, old chieftains, had lived in, in Saga times. The house has one story only, and a narrow passageway, somewhat like a closed-in veranda, runs along the façade, which one must cross to enter the house. The threshold is inordinately high, and the very narrow door makes access to the large room rather difficult. The room is in semi-darkness, but even in the dim light one is struck by the well-proportioned and spacious simplicity of the

square, solid walls, and by the symmetry of the huge rafters and beams.

In the center of the room is the raised square of stones—this is the aare or hearth, and on it the fire was made. Right above the hearth, in the roof, is the *ljore* through which the smoke escapes and the light comes in. It is somewhat like a modern skylight, but as glass was unknown when such cabins were originally erected, the wooden frame was covered with the transparent membrane of a sheep's stomach. This membrane is translucent, and gives a soft, mellow glow to the room when the light shimmers through it. The ljore was opened when a fire was made, in order to let out the smoke. It was opened with the aid of a sjaastang—a sort of wooden pole and this pole and the fireplace were the two sacred spots in the room, says Alheld Schou, an authority on old Norse customs. "It, the sjaastang, is the sacred center of the room, and every traveler must grasp it as he enters." Eilert Sundt says that this custom-or rather sacred tradition-really grew from the fact that when a man was suddenly ushered into the center of a room, in the spotlight, as it were, and all the members of the household were seated around the walls, at the long tables staring fixedly at him, he was apt to be embarrassed and instinctively clutched the spaastang to steady himself.

While, in the Sagas, love at first sight is by no means uncommon, the men were expected to remain faithful to the women they chose, as is shown by the following phrase which the suitor's friend pronounced as he grasped the *sjaastang* at the maiden's house and pleaded for his friend. "My friend (then followed his name) wants to have and keep your daughter, not for one year, or for two years, but for ever and ever."

If the father approved of the suitor, he bowed to the friend and said: "Let him come."

ONG benches run the whole length of the walls, and now, long tables,—most of them from the fourteenth century—stand in front of them. But it appears that in Saga days the tables were brought in only at meal times. At other times, as they were collapsible, they were hung on the walls by huge iron hooks well out of the way.

In Saga days the women ate at separate tables, but later on this custom was done away with, and the wife had the seat of honor opposite her husband. At first the seat of honor was in the center of the table,—as it is to this day in France; later on it was transferred to the head of the table.

The wall back of the seat of honor was always hung with woven blankets and tapestries. These were executed by the women, who not only spun the thread, but dyed it and wove it into the gorgeous coverings. The patterns are often extremely delicate, and the color combinations are striking. When one looks at some of these tapestries and considers that they were not executed by professionals, but by amateurs, by women who sat at the loom when no other household duties occupied them, one is truly astonished, so great is their beauty.

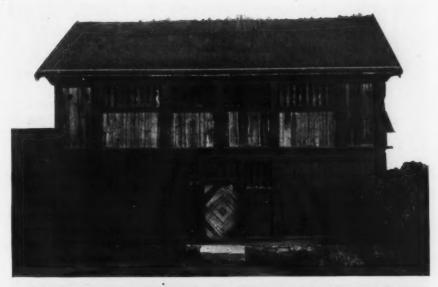
Carved wooden dishes were used for food and drinking horns and wooden mugs for liquids. And says Alheld Schou, "when one looks across the room, one may easily imagine its aspect at the Yule Tide, when the fire flamed on the *aare* and the mead horn and the beer jug passed from hand to hand, and the guests drank to each other across the fire, while laughter rang out from those sitting along the benches."

When one reads about houses without chimneys, where the smoke must go out through a hole in the roof, one is inclined to think that the rooms must be unfit for habitation. This is not always the case, as I found for myself during a trip on foot through the Norwegian mountains. In one place I came across a chalet where the fireplace was not in the center, but in a corner of the room, and the smoke had to find its way up under the roof from the corner to the center, and escape through a hole there. The room was not half as smoky and uncomfortable as one would think it would be, and the old Norsemen, who were used to it, probably did not mind it at all.

However, as the years ran on, the Norsemen learned how to build chimneys. They also discovered that it was possible to have more than one story to a house. But before attempting to build one entire floor on top of another, they made a compromise of having the second story covering only part of the first,—a house of a floor and a half, as it were. The earliest example of such houses were probably found in the tenth century. In the eleventh century it is mentioned that the Norwegian King Olaf spent the night in such a house, in Gulbrandsdalen. Dr. Sandvig has collected two houses of that type—the only two left in Norway—but they are of more recent date, one having been built in the fourteenth, the other in the sixteenth century.

While the aarestue had no window at all, these ramlofstuer, as they are called, have two or three very beautiful ones. Glass had reached the Norwegian peasant by this time, and he had sense enough to make use of it artistically, cutting windows into the center of the walls. These wide windows let in a flood of light which fills the room and at the same time leaves the large corners in very effective shadows.

The fireplace of today which is usually placed in a corner diagonally opposite the door, consists of a raised square of stones, and the two





A TWO-STORY LOG CABIN BUILT IN NORWAY IN SIXTEEN HUNDRED AND FIFTY-NINE: WHILE THE DETAILS OF THE STRUCTURE ARE ABSOLUTELY PRACTICAL IN PURPOSE AND ESSENTIAL TO THE STRUCTURE THEY FURNISH A DEFINITELY STRIKING ORNAMENTAL EFFECT.

INTERIOR OF ONE OF THE FOURTEENTH-CENTURY CABINS: THE TAPESTRIES DATE FROM THE SIXTEENTH CENTURY, BUT THE TABLES, THE LIGHTING FIXTURES AND THE CABINET ARE OF THE EARLIEST TIMES.





SHOWING THE CONSTRUCTION OF A LOG STOREHOUSE OF THE EARLY PART OF THE SEVENTEENTH CENTURY: THE UPPER STORY IS THE GUEST ROOM.

INTERIOR OF AN ANCIENT TWO-STORY LOG CABIN IN NORWAY: THE FURNITURE IS OF THE EARLY PART OF THE NINETEENTH CENTURY, THE CASEMENT WINDOW IS EVIDENTLY OF A FAIRLY MODERN DATE.

sides nearest the walls, are continued upward, so as to form a chimney when the hood is put over the fireplace. The chimney is independent of the house, as it were, not leaning against the wall, but rising straight up through the room. The fireplace is almost always situated about a foot or so away from the wall. When beggars came to the house they were seated behind it—in the heat but out of the way.

In every old house the furniture was arranged according to ancient traditions. To the right, when one entered, for instance, was a little wooden pail, filled with whey. A wooden ladle hung over the edge, and anyone who entered had the right to help himself to refreshment. A little beyond the whey was the corner cupboard, often very beautifully carved or painted, and then came a sort of box with two holes in it, which hung on the wall. It contained a brush, made from swine bristles, and a rough iron comb. The stranger was

supposed to polish up a bit before joining the family.

Here, too, long benches ran along the walls, and tables of one solid or perhaps of two pieces of wood, stood in front of them. Tapestries hung on the walls. In one corner, usually on the same side as the fireplace, was the bedstead. Or the bed might be in the adjoining room, which had the effect of an alcove. The old Norwegian bedsteads are most fearful and wonderful contrivances. Rarely are they more than four or five feet long, and often almost as wide. It seems that in the fourteenth, fifteenth and even sixteenth centuries, people in Norway did not lie down in their beds,—they sat in them. A person was propped up, so to speak, by four or five feather beds and as many more pillows under his head.

But there are also more extraordinary beds. Some look like boxes, and one kind looks like a bed made on top of a wide closet about three feet high. When the doors to the closet are opened, a second bed underneath comes to view. It seems that it was customary for the children to sleep underneath the parents, and if they cried too much, the parents calmly closed the doors on them, so as not to hear the noise. Sometimes there was a hole in the little door of the closet, but

others seem to offer no ventilation.

Almost every cabin has an outside passageway. The stairs, too, are invariably outside. Dr. Sandvig said he had not been able to discover exactly why the old Norsemen objected to hall and stairs inside; but it is only recently that the latter improvement has been made, and even now, in out of the way places, one comes across outside stairways.

In some old cabins, the little room which composed the second floor was called the Maiden's Bower. This was built for the daughter

of the house of marriageable age, though often used as a guest room. In olden days, among the peasants especially, it was not considered proper for girls and boys to be seen together. They say this was largely because a boy did not care to have people say that he was engaged to a girl when he was merely paying her a little attention, to find out perhaps if he would like to be. To spare the feelings of the shy Norwegian youth social etiquette demanded that every Saturday night the young maiden old enough to receive attention should spend the evening in her Bower, there to greet and entertain her friends or her lover. Her callers could climb the outside stairway unseen by the family, and in case they stayed late, the sleeping children and old folks were not disturbed by their departure. As a rule, however, the visits were short, as Saturday night was the one reception time of the week, and most of the boys wanted to make as many calls as possible. Sometimes several boys might meet at one girl's Bower, and this was, of course, very much to her credit. The door was always open, on Saturdays, and anyone had the right to walk in, unless a girl was reported engaged, in which case only her fiance had access to the Bower.

Sometimes there were large parties and fêtes, and then it was customary for the guests to bring along a ration of porridge; it was not an ordinary porridge, but a very carefully prepared delicacy of whipped and boiled sour cream, served with a huge lump of butter in it. After the reception was over Saturday nights the maiden slept in her Bower, though at all other times she was expected to conform absolutely to the regulations of the family life downstairs. This quaint custom still obtains in some of the more remote Norwegian valleys.

HILE all these old houses are haunted with traditions, the cottage that belonged to Peer Gynt, the hero of Ibsen's drama, is naturally most romantic of all. His cottage has two stories and was built at the end of the sixteenth century. Peer Gynt was a real person, and lived sometime during the seventeenth century at Fron. He was a mighty and powerful man and very wealthy. But he was peculiar inasmuch as he had a beautiful house and land, he preferred to live in this little cottage, and he liked to wander off for weeks at a time, being out in all kinds of weather. This had given him the habit of half-closing his eyes, to gyme as they called it, and on account of this mannerism he was dubbed "Gynt."

Peer Gynt was a great hunter and fisher, and when he returned from his expeditions he had the strangest stories to tell. The most wonderful things happened to him, some of which Ibsen has recorded

and embellished. Sometimes he would meet with long bridal processions and hear wonderful music, and a beautiful girl, with flowing golden braids and soft green dress, a *huldre*, would speak of love, too.

Sometimes he would pretend to listen to her, but he would always escape at the last moment. The *huldre* are weird underworld people, and yet have farms and chalets just like human beings. The girls are always fair and young, given to enticing mortal men into the underworld. And once there, escape is impossible.

The huldre women, although more beautiful than other women, have one defect—a cow's tail, which they always try to hide, but which usually manages to trail on the ground below their skirts. And

that gives them away.

When Peer Gynt was out alone, the huldre often set their traps for him. Once he was out fishing, for instance. The water was full of fish; it looked almost as though he could pick them up with his hands. But not one would bite. As he sat there, cross and aggravated, he heard someone giggle back of him, in the woods. It was a huldre. And Peer understood that she had prevented the fish from biting. So he promised he would give her this and that and many things if she would go away. But she stayed and laughed in his face. At last he said, "Well what do you want?" "I want to be your sweetheart, Peer." "Very well," said Peer, "come tomorrow and we'll talk it over. I want to fish just now." So she went away and he caught lots of fish and the next day he stayed home.

Another time Peer had just come home to his cottage. It was a stormy day, and he was poking the fire when he heard someone knock at the door. He opened, and found a beautiful girl with large blue eyes, who asked for something to eat. Peer was going to give her something when he caught sight of the cowtail trailing behind her feet. "Ah, now I've got you!" he shouted, taking a ladle of hot soup and throwing it over her, while with a shriek, she picked up her

tail and fled away to the woods.

After that Peer had a row of little brown crosses marked over the door—they can still be seen—to frighten the *huldre* and trolls away. And every Christmas Eve he painted the crosses with a mixture of blood and tar.

THE living part of Norwegian farms is made up of groups of small houses, most of them having only one story, and having probably not more than two or three rooms. These houses are grouped around two courtyards, so to speak, the outer court being formed by the stables, the pigsty and the barns, and the inner court formed by the dwelling houses. When a house grew too small, the old

POPPIES IN THE WHEAT

peasants never remodeled it but built a new one next it, leaving the old house to stand empty or else using it as some kind of a storehouse. Some farms have as many as twenty or thirty old houses grouped around the yards. Aside from the dwelling houses, the most interesting building is the *stabur*, or the storehouse. It has always two stories and the upper floor protrudes over the lower one. Sometimes this projection is one of the closed passageways mentioned before—

other times the room itself projects.

While other houses are either built on the ground or on stone foundation, the *stabur* always stands on posts, and the little staircase that leads up to the door is a foot or two away from the threshold, to prevent mice and rats from getting in. On the first floor are stored provisions—flour, corn, meal, bread and smoked hams and meat. All the bed linen and feather beds and blankets and clothes are stored on the second floor, where, strange to say, there always stands a bed. Here the honored guest is asked to pass the night. By permitting him to sleep in the storehouse, the subtle compliment is paid him that he is a man in whom one may have confidence, a man to be trusted with the treasures of the house. It is also a delicate way of letting him see the prosperity of the family, and of judging of its financial status.

In the remote Norwegian valleys where the rush of modern life has not yet penetrated, the stories of the past still abound,—links between the bygone days and present ones. But the old log houses are fast disappearing, and to future generations, a trip to Maihaugen and its calm and massive old homes will seem like a page out of some quaint

story book.

POPPIES IN THE WHEAT.

HEN waning summer brings hushed autumntide,
And quails break Sabbath with their whistling sweet;
Then flame the crimson poppies in the wheat
Where all the land is fragrant as a bride!

The glory of the harvest and its pride— Forevermore they flutter in the heat: Music of autumn do their lips repeat;

They share a rapture and a joy world wide!

The wheat is old as Egypt, and its croon
Breathes songs of bursting barn and granary.
Only the poppies with their dancing keep
Sweet memories of romance and of June;
And echoes soft of springtime's verdant sweep
When April touched the world with witchery!

EDWARD WILBUR MASON.

MODERN COUNTRY HOMES IN ENGLAND: BY BARRY PARKER: NUMBER TWENTY-SEVEN



HE present chapter is devoted to the consideration of an important phase of architectural activity: namely, the planning of additions, alterations and repairs to old buildings. The subject will be approached with trepidation by all who appreciate its seriousness, for considerable harm may be done by creating a misconception of his duties in the mind of one entrusted with

the repairing of an ancient structure. Misgivings of this nature lead me at the outset to avoid the word "restoration," lest I might seem to

condone much that has been done in its name.

Similar distrust of himself will probably assail the architect who undertakes responsibility for a beautiful historical building. He will realize the significance of the demands made upon him and the importance of his trust. If he happens to be an antiquarian or archæologist, he may have an uneasy consciousness that archæological and antiquarian interests are a sign of decadence in any age, and he



THE RUINS OF THE WEST FRONT OF KING'S LANGLEY PRIORY.

may doubt whether his work possesses the vitality necessary to suc-He will discover in the work of the artists of any great period no trace of doubt as to the superiority of their work over that of their predecessor, and he will feel how different it is with himself. He must appreciate that he is merely a trustee whose duty it is to hand on to future generations, unimpaired, all the historical interests, the natural and artistic beauties of the building entrusted to his care. And at the same time he must see to it that the work is strong, stable and well adapted to fulfil present requirements.

His task is really more hopeful and perhaps even more wholesome if he is required to render the building constructionally sound while adapting it to fulfil modern demands of comfort and convenience, and not simply to preserve it as a museum specimen whose active life is over.



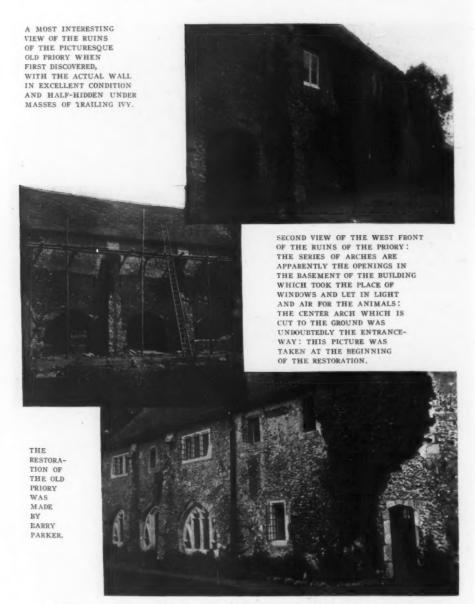
THE WEST FRONT OF KING'S LANGLEY PRIORY RESTORED BY BARRY PARKER

If he is an architect per se, he must necessarily realize that his first business is to determine what is beautiful and what is not, and that his next is to decide why one thing is beautiful and another ugly. Moreover, he will have discovered that too great an interest in the historical side of his art tends to distract his attention from things of primary importance, and also to weaken his power of design. So he will probably question whether his knowledge is full enough to insure his taking into account everything of the least historical significance.

> It is difficult to formulate rules which may be followed with safety in making repairs and additions to ancient buildings, but possibly the following will be found helpful. First, never try to make the new work look old or



THE WEST FRONT OF KING'S LANGLEY PRIORY AFTER BEING RESTORED BY BARRY PARKER: THIS PART WAS PROBABLY ORIGINALLY A STABLE WITH LOFT OVER-HEAD, WHICH APPARENTLY HAD NOT BEEN USED FOR A LONG TIME PAST: IN THE ORIGINAL STATE THERE WAS NO GLASS USED IN ANY OF THESE OPENINGS, SO FAR AS ONE COULD TELL FROM THE FORMATION OF THE STONEWORK.



AN EXTREMELY INTERESTING VIEW OF THE WEST SIDE OF THE PRIORY AFTER RESTORATION, THE WALLS PRACTICALLY UNTOUCHED, BUT THE OLD ARCHWAYS CONVERTED INTO BEAUTIFUL WINDOWS AND THE VINES AGAIN TRAINED BACK OVER THE STONEWORK.

like the old. Second, never do anything in the new work which falls short of the most beautiful and practical you can conceive, from a

mistaken idea of loyalty to the old style or period.

It is good for us sometimes to picture to ourselves what lifeless and meaningless piles our cathedrals and churches would be if their builders, in each succeeding age, had felt obliged to do their part of the work just as the first builders would have done it, instead of each doing what he conceived to be better than his predecessors, and availing himself of his greater knowledge of construction and materials.

In repairing a building, our respect for the historical interest of the old work may often lead us to leave parts of it intact and rest content with something that falls short of our modern ideals of beauty and convenience; but in making additions to an old structure we must never be hampered in our striving after practical and asthetic perfection by a fear lest the new work be out of keeping with the old. The most harmonious additions to old buildings always frankly declare themselves such, and often differ from the original entirely in style.

Restorers of one school hold that if they can recover the original design they may reproduce it with no restrictions as to the extent or character of new work used to replace old. They ignore the fact that the result of such restoration will be neither a new work of art nor a relic of the past, and they hold that it matters nothing how completely they befog those who try to trace their history or to study the

work of past ages.

Restorers of another school hold that the slightest repairs to an old building should be done in such a way that any student may discern exactly what is new and what is old; that therefore, for example, stonework should be repaired with brick or tile, and brickwork with

stone or tile.

Without proclaiming allegiance to either school, I would suggest that we should alter old work as little as possible, whenever practicable making necessary modifications in the form of definite additions, and never replacing any old work with new except where this is constructionally necessary, or where it is requisite to fulfil the purpose of the building, or to insure the health and comfort of those who are to inhabit it. We must remember that we cannot preserve the old work by substituting new. We should then never replace with new any old decorative features—such, for example, as moldings that perform no useful function. If we wish for ornament we should add new where none exists; we should direct our efforts toward the preservation, not the replacing of the old.

Perhaps the most fatal error a restorer can make is to try to secure

effects which time alone can give. Only artificiality can be the result of this. I recently went over an historical building in Wales which was undergoing repairs at the hands of His Majesty's Board of Works. The Clerk of Works showed me with pride a doorway, the new stonework of which he had rubbed with files, chipped and broken with hammers and dirtied with soot until it was almost impossible to distinguish the new stonework from the old. This is merely one instance of an attitude toward architectural restoration that is even less justifiable where less obvious.

I knew an able designer of stained glass who, having to design new windows for an Early English church, strove to forget his knowledge of the human figure and to draw it as a thirteenth-century glassworker would have done. He made it his aim to do nothing which the draughtsmen of that period were unable to do, forgetting that he could not reproduce the delightful naïveté, directness and freshness of their work by sacrificing the opportunity to express his own feeling

for beauty in his own way.

While sympathizing with the ideals which have prompted the rebuilding of St. Mark's Campanile at Venice, I doubt whether its rebuilders were guided by a true artistic instinct when they reproduced the appearance of the old tower as exactly as they could—unless it was because they felt that the form the old tower had assumed, after many additions and modifications, was the most beautiful which could be conceived of. As a new tower was desired in place of the old one it should have been the aim to make it as beautiful as could be, using in it such old parts as were still intact, to which historical associations and the people's love might still cling.

To anyone entrusted to work upon an old building, I would commend the most drastic searchings of heart, to discover whether or not he is a mere votary of a passing fashion. Let him realize that much which seems to him to possess no beauty may be pronounced by future generations to be the glory of the building he is dealing with. Many of the grossest acts of vandalism in the past have been those dictated

by fashion.

Revival follows revival. At one time all the work of the Middle Ages is thought to be barbaric, and public taste cheerfully condones almost any destruction and abuse of it. Then arises a cult which recognizes none of that beauty which springs from symmetry, balance and proportion, and to whom the whole influence of the Renaissance is anathema. At one time the picturesque alone appeals; at another only that which is symmetrical is allowed any claim to be considered as architecture.

He who tends toward such extremes or feels too strongly the influ-





VIEW OF THE PRIORY, SHOWING HOW LITTLE THE OLD PART WAS CHANGED AND HOW DEFINITELY NEW IS THE ADDITION.

NORTH END OF THE DRAWING ROOM OF THE PRIORY COMPLETELY RESTORED: WHEN DISCOVERED IT WAS WINDOW-LESS AND FLOORLESS, THE RUIN OF A PART OF THE STABLE.





PART OF THE OLD PRIORY COMPLETELY RESTORED WITH THE GARDEN BROUGHT UP TO THE SOUTHWEST WALL. THE SCIENCE ROOM, WINE-GATEHOUSE AND BARN OF THE PRIORY, ALSO THE NEW STAIRWAY LEADING TO THE UPPER ROOMS OF THE GATEHOUSE.





SHOWING THE INTERESTING WAY IN WHICH A MODERN ADDITION TO THE WEST FRONT OF THE PRIORY IS INTERWOVEN WITH AN ANCIENT WALL AT THE LEFT AND A BIT OF THE OLD STONE FOUNDATION AT THE FRONT. SOUTH END OF THE DRAWING ROOM OF THE PRIORY RESTORED, SHOWING ONE OF THE OLD STABLE-ARCHES MADE INTO A WINDOW.





NORTH END OF THE DINING ROOM SHOWING THE OLD TIMBER ROOF AND THE NEW CASEMENT WINDOW. VIEW OF THE SOUTH END OF THE DINING ROOM SHOWING PLASTER WALLS AND BEAUTIFUL OLD TIMBER ROOF.

ences of certain phases of beauty and is dead to those of other phases is ill-fitted to undertake the care of ancient buildings. Catholicity of taste is necessary. There has always been good and bad taste; it is not simply, as some suppose, a matter of your taste and my taste, both of equal value. Therefore, he who tampers with an



DINING ROOM OF THE PRIORY, RESTORED.

old building must be possessed of the ability to see when work is in good taste, even if it makes no appeal to his special temperament. However, it is more usual for an architect to be commissioned to adapt an old building to modern requirements than to repair and

leave it to tell its tale of the art, manners and customs of a

former age.

King's Langley Priory, illustrated here, was little more than a ruin when I was asked to create out of it a new home for an established school. Part of one of the gatehouses remained and was in use as a shepherd's cottage; how much else existed the accompanying plans, sketches and photographs will Another part of the show. building was also inhabited, but what is now the drawing room had for long been unused, and seemed never to have been utilized for any but its original

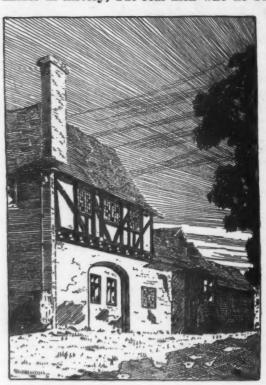


MODERN FIREPLACE IN PRIORY DINING BOOM.

purpose, which was probably the stalling of oxen, mules and horses. The beautiful timbered roof was intact though in sad need of most careful repair. New windows had to be cut in the walls and the positions of others changed; chimney stacks had to be strengthened, floors laid, the surrounding soil removed, and new wings were added to give the accommodation required. The necessary staircases were placed so as to interfere as little as possible with the old work, and the outside staircase was erected at the gatehouse with the same thought in mind.

It is difficult not to feel a little envious of those so fortunate as to receive their early education amid the influences and associations of such a place as this Priory. How real will history be to them! When they read of Edward the Second's favorite, Piers Gaveston, or of Edward of Angoulême, son of the Black Prince, these will not be mere names in history, but real men who lie buried in their own school

grounds. The first three Edwards and Richard the Second will all lose their remoteness for pupils who read of their occupation of a royal palace much of which must have stood within their school's domain: and of "Richard the Second with Ann his queen, four bishops and as many earls, the Duke of York (Edmund of Langley) several lords and fifteen ladies" keeping Christmas there in thirteen hundred and ninety-two. Games played in the pleasant field must surely gain an added zest from the knowledge that a church once stood there, which Sir Gilbert Scott said when he saw the foundations exposed in eighteen hundred and thirty-one,



THE PRIORY GATE, RESTORED.

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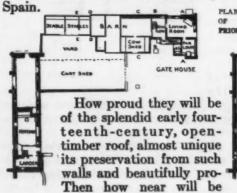
must have been almost as fine as Westminster Abbey. Rooms which for centuries were the quiet haunts of friars and pilgrims must possess influences that no modern school could have.

"Old John of Gaunt" (so real a personage to us all) must stand out even more vividly for those who live where he "kept company with his brother Edmund of Langley and the King" in thirteen hundred and ninety-six, and where Edmund was born

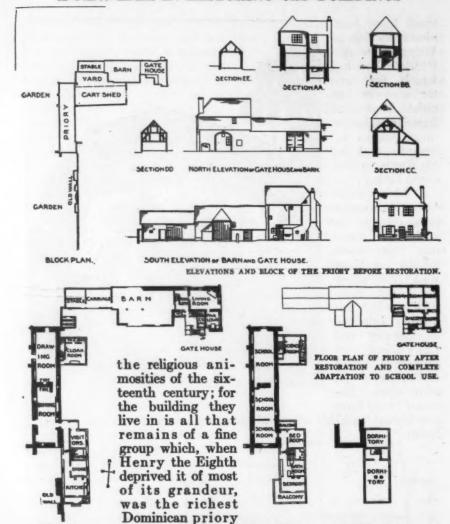


THE SOUTH END OF THE RUINS OF THE PRICEY.

and buried with his wife Isabella, daughter of Pedro the Cruel of







in England. In these buildings Queen Mary established a community of nuns, which was disbanded, however, when Queen Eliza-

beth came to power.

These glimpses of the past will be heightened in vividness by the discovery of a document whereby Edward the Second granted to the friars the right to gather fuel for their fires in Chipperfield Wood—the wood where the children now gather flowers.

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LINCOLN MEMORIAL SCHOOL: A NEW IDEA IN INDUSTRIAL EDUCATION: BY RAYMOND RIORDON



HE industrial training of children should have as one big thought in the foreground—character development. That skilled labor might result from industrial training, that industrial training might lead to later vocational training, are to be conceded. Goodness is not character. And men are rare who can be useful to a community and do not know how to use their

hands. Industrial education has been the cure meted out for the deformed, the undesirable, the deficient. Industrial education should be the preventive. The cure is doubtful; the prevention is

sure.

The son of the workingman has to go to work and soon becomes a drudge; the son of the man of means gets no chance to work and thus becomes a parasite. Both are, undoubtedly, the result of our public-school system. The United States is criminally negligent in caring for her wards—the children—when it comes to education. And through education, but beginning with the babe, is the only chance for

the regeneration of a race already showing moral decadence.

We are taught responsibility. Parents do not understand responsibility. They try very hard—many of them—to do all possible for the child, after the child is born. The time to do for the child is during the youth of the parents. And there is no way the youth of the land can be made to understand this, save through the public schools, save through industry—unselfish occupation—during the adolescent period. Sex preachments have never prevented anything. Self-protection is not possible through being told how; self-protection comes from knowing how. The only way to learn is through doing. Mastery of self, muscular control, mental morality through the centering of thought on helpfulness toward others,—these attributes are possible only through constant and unselfish occupation during the formulative years. This country does not possess a conscious citizenship.

This age has kept us so very busy perfecting and marketing horse power, that man power has been greatly neglected. In consequence, the man who might be willing to work, doesn't know how; and the man who happens to know how, rates his earning power with the developed mechanical force and his demands being met, has meant a resultant decrease in accomplishment at an increased cost of effort. The increase of foreigners, who do the so-called drudgery, has taken from the hands of the male population of this country, the source of their forefathers' strength—the strength on which was founded the nation. Great

nations have been and are the physically industrious ones. To the fact that the great mass of the German people toil with their hands, live next to the soil, is due, without doubt, their preëminent position among civilized countries today. On the other hand, nations whose light has been kindled by their wits, find the flames soon flickering, if not extinguished. The Romans, 'tis true, and the Spartans, were most physically fit; Belligerency, however, gets but so far, then like a whipped dog, slinks back and bows its head to Justice. The nation that lives by its wits, the nation that climbs through its armies' activities, is doomed. From the soil emanated life, and recognition of Justice. Justice decrees that each shall labor in order that his neighbor's neck may not ever be under the yoke.

"Of Law, there can be no less acknowledged than that her voice is the harmony of the world." Law should mean peace. But war, rapine, murder, inhumanity—all have become legalized through brains. Poor Justice would well be blind that she might not see the shame of law. Moral law needs no policemen, no jail, no courts; moral law bespeaks manhood, helpfulness, Christianity. And the

makers of the code of moral law must be the children.

Education is a matter for constant change; education is progress. Education must meet conditions that are at hand, yet act as a preventive for recurrence of such conditions. Education should mean happiness, and there can be no happiness without successful performance of a task. Law is a result largely of custom, of precedent, and must be. Therefore, new custom, new precedent must begin with the child.

THE education of children should have as a second big aim—civic improvement. Good citizenship should not consist in merely obeying the law. The civil law is but an ill-advised way for creating and sustaining government. No good government can exist unless sustained by moral law and it should be the function of education to insure moral training to the young of the state. There is not a government in existence today where the people rule, and a nation cannot be truly great unless people do rule. Were the people to rule today, not in this country alone, but elsewhere, there would be anarchy because education has not prepared the children for civic improvement, for civic understanding. Education should mean self-reliance, fortitude, daring, self-control, endurance, self-sacrifice. Education is too much a matter of quantity—a peck of mathematics, a pound of history, a ton of English, a gallon of geography. Education should not begin at seven and end at eighteen, or twenty, or thirty. Education is for always. And to make possible

the two aims stated—character development and a conscious citizenship—is the duty of the administration department through industrial

training.

The principal of a school, having understanding, and no intermediary but the superintendent, freed from special supervisors (the ruination of independence in teaching and honesty of thought and expression) allowed absolute sway in his building and the community neighboring the building, given the authority to select his own teachers and plan the curriculum for the individuals coming under his care, such a one could make a public school do what it should for the children of the people.

There are few such principals, if any; there has been no precedent governing the training of teachers along these lines. Therefore, to reach the desired aim, the beginning with such a work must be made through a system stamped with Federal and State approval, if not coming directly under their jurisdiction. The success of such teaching would be assured when the public schools were made self-

supporting, or partly so.

I personally am positive that any school in any locality could through self-maintenance create a new citizenship. I personally am positive that private schools maintained by our Government—Federal or State—could become self-supporting institutions and not only develop a conscious citizenship, a clean coming generation, an economic race, but could also train boys and girls to develop specifically the resources of their States, each State to be strengthened through local flavor. At the present time, we seem to seek new lands to con-

quer, when all is yet to be done at home.

With the above thought in view, a plan has been submitted to Congress, outlining a National School and embodying the ideas necessary for the formulating of a new type of public instruction. In addition, it is suggested that another fund supposedly available—the George Washington bequest for a National School—might be kept in mind, as well as the Lincoln Memorial appropriation upon which the idea of the proposed school is now based. And even if the Lincoln Fund could not be used, surely some action should be taken to prevent the George Washington bequest from being brought to light for the further exploitation of experimental work. Higher education has proven itself inadequate in supplying the nation with a race of men. Its product is largely useless and is looked on askance by the business man today. And like this product, so will be its progeny. It is now time that the child received attention, in order that the coming race practice the virtues of industry, helpfulness, subordination of self.

PROPOSED NATIONAL SCHOOL UTILIZING LINCOLN MEMORIAL FUND. NIVERSAL belief in the non-partisan action of men fighting for a bi-partisan cause, is surely a test of greatness. Both Lincoln and Lee have stood this test. Arlington, our National cemetery, once Lee's home—peaceful, beautiful, truly im memoriam, stands a lasting monument to Lee. In his garden lie at rest, not his enemies, nor the enemies of the South, but guests in death of the host against whose cause they struggled. Forgiveness, forgetfulness of strife, eternal peace! And now we would honor Lincoln-fittingly record the living greatness of this great American. A generous Government—inoculated with the guilt of the age, extravagance, is ready to spend two million dollars that Lincoln may stand named in marble or in bronze. Indeed the vast sum appropriated shows again that we are inclined to rate our dead financially—Lincoln, the greatest, needs a greater sum than ever expended, that he might be sufficiently honored by the Government he served, the Government he saved.

But will a palace of stone, a pyramid, a building of any grandeur reflect such a man as was the war president? Lincoln was an unassuming, simple, nature-loving creature, molded by God Himself, and a perfect creation because he was never embellished by the false tinsel of society—forgetfulness of his kind, egoism, indolence. Our tailor architects never had a chance to hide the man. "I am only right, when those I serve are benefited," thus might have said Lincoln. Can anything other than life itself stand a memorial to such a man?

"The noblest motive is the public good"—Lincoln lived by this thought and why not let his memory live also by the same thought? Our schools are the salvation of this country. They might be much more—its sanctification. But today the public schools are conducted and based on too much sentiment and precedent. Attack the schools and the Little Red Schoolhouse orator begins; attack the courses of study and you become the object of a fusilade as furious as if the very Constitution of the United States were involved.

The proof of anything is always product—results. The boys who pass through our schools are not capable of earning a living, are less capable of rising above the commonplace, have no basic idea of citizenship, and are weaklings physically. This in spite of vast changes in curriculums, in spite of splendid gymnasium equipments. We do too much for the child. His entire education should be a course of learning through doing. Froebel worked this idea out appealingly in the kindergarten, and we have accepted his methods; but so far we have not dared to make all our work conform with this sure, and the only sure, principle of education—learning through doing.

The public schools should not be a place to exploit the oratory of Jones, the high jumping of Brown, or the drawing of Smith. The public school should reflect the community; but it does not. The first fifteen years of child life is the only time when training can be made permanent, yet we do not begin to give much thought to the child until he is in the high school. And then, what thought? At just the wrong age we have our boys and girls together in school; at just the wrong age we crowd the mind when the body ("There is but one temple in the Universe and that is the Body of Man") should be allowed to develop, to grow to prepare itself for functions of sex. The present three years of high-school life should be given over largely to freedom of action and thought. This does not mean lack of systematic training—but it does mean the harnessing of power so that it will pull forward, not backward.

S nearly as possible the actual building, and most assuredly the maintenance of every public school should be the work of the children and parents using the building. And the parents should not only be pupils at the school, but the best ethical teachers in the school. The modern school is institutionalized, is burdened, therefore, with inspection, with supervision; individuality is crushed out of the teachers, and we reflect what we are. The "best" children are the best bookworms, or the best behaved, or the best anything that causes least trouble or annoyance. The best pupils should be those who are most law-abiding in practice, and practice is rarely obtained at school. In districts where men and women are laboring people, they are stigmatized with help from the charitable organizations, church visiting guilds,—what a shame to make people paupers. The mere fact that people are in the laboring class should make their neighborhood the happiest, the brightest and the most law-abiding. For contrary to the popular whim, but recognized as the greatest truth by the wise of all ages, work is the one source of happiness that faileth not. What knowledge could more conduce to their welfare and to the welfare of the communities in which they live? What could we teach our children more essential than this? There is just one agent that can tap this fountain of happiness and public weal, and that is the public school. Until a standard for this sort of schooling—the schooling that inculcates love of work, unselfishness, desire for usefulness, self-support, is set, the public schools will never come out of the mire; the country will continue to retrograde, and we shall be drifting into another civil war. And where shall we get our Lincoln? Do we Americans realize that the few bright spots—seemingly so because they awaken a new idea in our latter-day education, are

little items culled from Germany or Switzerland, or other foreign countries? We need borrow from none, for we are richest; but unused power brings about decay, and we are allowing the foundation of the nation—the public schools—to rot and wear away from lack of chink-

ing and spring house-cleaning.

Near Washington, D. C., a tract of land might be purchased,—a tract as rough as real estate men have left it—and on this tract should be timber and water. We already have Annapolis for our Navy; West Point for our Army—fighting schools; caste schools whose graduates tend toward an American aristocracy: but we have no National School for peace, no National School where children, the wards of the nation, are taught civic honor, civic pride, honesty, virtue and governmental purity. We cannot reform the disrupting dishonesty of our present system of Government in practice; one can't reform anything where the adult is concerned; one might begin with the child. This generation may not benefit from the Lincoln National School; but it is the country's future we are aiming to assure.

Each State and each of our civic possessions should send its quota of children to Washington. Selection should rest in some definite authority, but the boys sent should not be picked boys, the requirements demanding only that the boys should be healthy in mind and body. Selection should be a matter of eugenics. These boys should be about ten years old and should be in school twelve months each

Veer

Upon their arrival in Washington they should be set to work, building their home-house first, then other necessary buildings; but all these buildings should be planned by them, under guidance, of course. The first building might be a log building. If gravel is on the place, then a cement house should follow; if clay, then a building of bricks, after they have made the brick. The buildings planned of stone should wait until some of the boys have spent some time at the quarry from which the stone is to be taken. In brief, not a place to rest their heads, not a table from which to eat, except what they provide themselves.

MPOSSIBLE with children? Not at all, even at the right age—
ten years. Guidance is everything. Now we do not wish to
wait until these beginners grow up before we send out to the
States in charge of groups men to look for new pupils, before we have—
in other words—the normal department of the School. Ultimately,
the large portion of the boys should spread the gospel of independence
through their teaching, while others will do so through their citizenship. A normal department should be inaugurated in the beginning

with fifty pupils. Young men of fifteen or twenty should compose this group and should be molded largely on industrial lines. The teachers should provide the guidance and instruction for the younger boys and at the same time instruct the normal pupils in both theory and practice. The latter could do the heavier work while training the younger. The pupils should learn at first hand of the various occupations of our people by being at the centers of such occupation and actually entering into such work. "Books must follow sciences, and not sciences, books."

The boy who at the receptive age sees miners at work and helps them, is in the quarry and knows how and why, even at the press, picks and packs fruit, will before we know it, be devising ways and means for the bettering of laboring conditions, will vivify life with the genius that creates, will be active in mind and body. And in my mind the only safe genius is the guided one who develops genius through doing for

others.

Washington with its marvels in architecture, art, natural history, libraries, affords a fertile field for research, and all of its buildings should be used as they are, no effort being made to supply the Lincoln School with costly equipment and impediment. Employees of the Government will be rendering real service when they turn about as

teachers—but without extra pay.

The reaching out of the various branches of Government service—the Geodetic Survey, the Reclamation Service, the Agricultural Experimental Stations; the use of public documents now covered with mold; the unifying of this vast school the Government now maintains, but without cohesion and without big results; a better citizenship, a better country, would enable the Lincoln National School to regenerate education, but with the easy gradual revolution of the world upon its axis.

The School should merge into a university which should be a national one, and which should reflect the nation through good citizenship and active cooperation in governing the country. From the Lincoln School should flow ideas and plans for the building of school-

houses—their suitableness, their simplicity, their decoration.

There are so many ramifications to a plan of this sort, that it would take reams to discuss it fully, but one can easily foresee the possibility of a *living memorial* if such a school were conducted as planned—to make good citizens. And a good citizen labors, helps, does his own dirty work, believes in his Government, and is happy.

State branches would next be in order, and such branches, especially with their normal departments, would revolutionize education as it is generally understood. It will be hard for each "M.C." not to arise

and praise his normal school and the splendid education of his State. But the facts stand that our education is at fault, else why the prevalence of graft, of poverty, of imprisonment, of social scandal; why the fatal apathy toward public affairs, the universal absence of conscious citizenship, the appalling lack of worthy national ideals. Let us face the truth; our education is routine, superficial, uninspiring in short, a failure. Consider the possibilities of manhood as exemplified in the man we would commemorate, and then look around and ask if our public schools are doing their duty. The interest on the fund appropriated by Congress for a Lincoln Memorial would be sufficient—properly invested—to carry out on a proper and fitting scale the Lincoln School as projected. The school would have to be kept free from politics; it would have to be economically managed, and indeed such management should include returns from pupils' labor-at least in the way of self-support.

The plan for a National School would be incomplete—indeed futile in conception-if it did not care for the nation's fundamental strength -woman. Girls' work along suitable lines of domestic endeavor could readily be conducted, and the merging of the school work and life of the boys with that of the girls be effected at the proper—not as

now at the wrong, period of life.

The question arising in dealing with the race problem, the chance for a false stand on State's rights—all the many problems connected with a plan of such scope, can be easily handled if the scheme is allowed to thrive. Men of wealth throughout these United States would do more to support this idea, once its practicability were proven, than they are doing now in the giving of libraries, founding of

colleges and keeping them from foundering.

To recapitulate—a tract of land near Washington—say one hundred and sixty acres, a boy from each State in the Union, a young man from each State in the Union; fifteen teachers, largely men and women capable of doing with their hands, but necessarily none the less skilled with their heads; free access to the Government buildings; assurance of cooperation from Government employees; tools for building and for farming; tents for temporary shelter, and these borrowed from the army; an allowance of fifty thousand dollars for salaries, maintenance of one hundred persons, necessary buildings to start; ten thousand dollars for field and extension work; an understanding that the School is not an orphanage or a Governmental industrial home but a vast national attempt to recuperate our lost manhood, our passing resources, our waning integrity—and the results will abundantly repay the outlay. Lincoln will be honored.

AMERICA'S PAINTER OF SHEEP: THE ONLY PUPIL OF GEORGE INNESS, SR.: BY JEANNE BERTRAND



RACTICALLY every country has first acquired its reputation for a definite individual art through its genre painters. When we think of the great simple art of such Dutchmen as Rembrandt, Holbein, Frans Hals, Dürer; what France has done in the flower of her art with Manet, Monet, Rodin, Cezanne; of Germany before the days of the Secession art; of Italy's art in

convents and churchyards; we realize very fully that the art which must of necessity make a nation famous, is that undeniably associated with phases of life in which the mass of people are interested and familiar. England has had very little genre art since the days of Hogarth. Her paintings and her sculpture have been in the last decade most formal and conventional; in other words, British art during the Victorian Period has presented to the public what they wanted most to see,—court ladies, sentimental rural love scenes and groups of children in which light and dark hair was always evenly distributed. Thus art may add to the glory of the country or the humor of the onlooker.

Here in America we have been true to art traditions, in so much as we have painted for our own art world and critics those subjects which most inherently interested them; first landscapes, as we began to realize through the medium of George Inness that our American landscapes were worth painting; next portraits, as we came to the conclusion, with the aid of foreign countries, that our women were beautiful, and later on the more intensely human men began to realize that at least one good result of our immigrant population was to be found in the picturesque scenes of our metropolitan streets, and then these were painted and much admired. Perhaps we should not have appreciated these scenes quite so quickly if Daumier and Steinlen had not already opened our eyes to the interest of Paris and Munich streets. In any case, we have realized from what our artists were doing that what we wanted them to do were landscapes, portraits and metropolitan scenes; because art always has and always will express the interest of the nation.

But as yet we have scarcely an example of old world genre art, if we except Horatio Walker, who is really a Canadian, and John A. S. Monks, whom we have not known as widely and as sympathetically as his art deserves. It is an interesting story, the way in which John Monks decided to become this particular kind of a painter which America needs in her art history, and has lacked so completely. There was no background here for Mr. Monks' ideal of painting and he had

AN AMERICAN PAINTER OF SHEEP

not traveled abroad where he could imitate the enthusiasm of the French, Dutch and German artists to reproduce on canvas their rural scenes.

As the American people had very little interest in rural life, in fact, were somewhat ashamed of it always—seeming to feel that not to like the country was to be aristocratic-we naturally had no painters of rural scenes. The Hollanders loved their gardens and their animals and their back porches and all the beautiful colors of their vegetables and flowers. This is almost equally true of the artist of the Provence. Always whatever has made for the comfort, health and happiness of France has been of interest to all her people, including her writers and her painters. But in America we were ashamed of our New England orchards and our old-fashioned houses and most of all of our kitchens and stables. Our pigs were to be scorned and our chickens to be ignored. As for painting them, I think our New England grandmothers would have thought we were crazy. Whoever could imagine such a thing! The result is that some of the most picturesque and charming scenes in the history of our growth as a nation, have never been depicted,—a definite loss to our museums and to our art galleries.

A ND so we find with surprise and pleasure a man whose interest in art has always been in the genre phase of painting. From the beginning of doing exactly what he wanted to do, he has painted sheep. He has taken care of the sheep, he has lived where they were in the winter, he has been their shepherd in the summer. In the beginning of his career he shared the shepherd's hut. Whatever was essential in order to become absolutely familiar with this chosen subject for his canvases he was willing to do, indeed, enjoyed doing, because it brought him closer to what seemed to him one of the most interesting phases of life. Jean François Millet felt this same way about the people and the animals that he painted. He knew the French peasants, he knew the barnyards, the gardens, the doorways, the fields of Barbizon. He lived amongst them, and there was no joy, or tragedy or pathos in the lives of these folk that he had not lived out with them.

While a very young man Mr. Monks was an engraver; he was interested in his profession, and yet after a visit to Boston to a friend who was a painter, he was seized with such a desire to handle brushes and to create beauty on canvas that when he returned home to Meriden, Connecticut, where his business was located, it was only to turn the key in the door of his workshop. Once back in Boston he decided that he would be a landscape painter. For a few years he met and worked with various artists, failing to accomplish anything

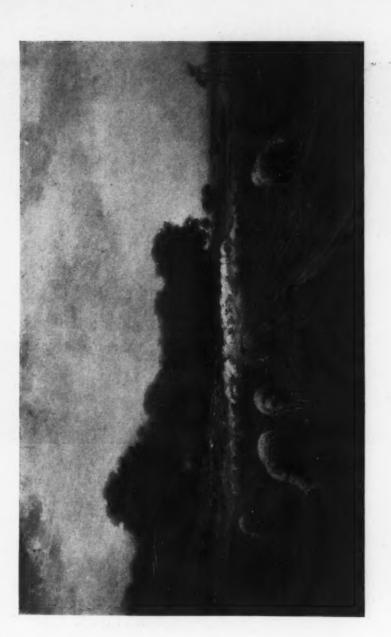


Photograph by Jeanne Bertrand.

FROM A PHOTOGRAPH OF JOHN A. S. MONKS FEEDING A GROUP OF FAVORITE MODELS.



"SHEEP BEFORE THE STORM," FROM A PAINTING BY JOHN A. S. MONKS.



"AT PEACE," FROM A PAINTING BY JOHN A. S. MONKS.



FROM A PHOTOGRAPH OF GEORGE INNESS, SR., AMERICA'S FIRST GREAT LANDSCAPE PAINTER.

AN AMERICAN PAINTER OF SHEEP

very special, beyond his joy in the work. He was always a faithful student and a tenacious worker. The study of an old willow tree made from the yard of an artist with whom he was working, eventually led to the beginning of his success. This tree was painted over and over again. It seemed to Mr. Monks that it would never show all the interest, and grace and charm of the original tree. To him the tree had a personality which he felt he must put into the picture. It chanced one day that George Inness visited the studio, where Mr. Monks had been painting his tree. Catching sight of it, he said, "Show me that, who did it. Send Monks to my studio and tell him

I want to see him."

One can picture how gladly and nervously the young artist responded to the call. "I am the young man that painted the willow tree," he said, "you wanted to see me." "Get your brushes and easel and place your work beside mine," said the great master of American landscape. "I will teach you all I can." And so they worked together, not merely as master and adoring pupil; but as friends; both rather quiet, the elder man indeed reticent. Once when these two friends had been separated for a short time, the younger man returning found the master painting in the fields. Hurrying across the meadows he met Mr. Inness standing quietly, almost with embarrassment, and was greeted with a simple, "Well, how are you?" But the close comradeship with so vital a personality as the elder Mr. Inness brought about an interest in genuineness and a sympathy with nature, which eventually enabled Monks even to leave his master and start away to find his own field of expression. It was then that he began to paint sheep.

In the black and white reproductions which we are showing this month, of course, we can only give the outline of these intimate, sympathetic genre pictures, leaving to imagination the brilliancy, the exquisite harmony of color. Painting out of doors, studying all the beauty of nature, as well as all the interest and complexity of domestic animal life, has awakened in this painter a knowledge of the wonder of out of doors, a poetical appreciation of the hills and pastures where he has strayed as a kindly shepherd, that give a value to his pictures, which perhaps he would never have found had he sought solely to become a landscape painter. For it seems in life that some of the most satisfying experiences are brought about when we are searching earnestly and honestly for a goal quite unrelated to the achievement

which eventually is ours.

One phase of Mr. Monks' work is interesting to record,—that while through an intimate life with these favorite animals he must have grown to know every phase of their nature, all their discords and diffi-

WILD DUCKS

culties, all the minor ways in which they resemble the human race; yet in his pictures we find them presented always in the gentle, gracious mood. It is as though through his love for these animals Mr. Monks could only let us see them in their quiet, happy, peaceful scenes.

Not only has he painted sheep indoors and out, at play, sleeping in sunshine, in twilight; but he has modeled them most interestingly in clay. And although he began painting the sheep of the New England hills, he has since painted them all over the country,—North, East, South and West, each with their separate characteristics, for sheep vary as people do in different localities; but always they are presented with kindness and with the devoted friendship, which must win for things loved, the interest and the appreciation of the public.

WILD DUCKS.

HEARD the wild ducks passing in the night,
From shadowy skies their call came dimly down,
And the soft magic of their yearning flight
Swept the dull spaces of the sleeping town.

Into my chamber came the breath of spring,
Pregnant with promise from awakening buds;
Into my heart came fancies, billowing
With the glad rhythm of sun-loosened floods.

I saw the wind-blown crocus on the hills,
With the fresh starring of anemones,
Heard the thin laughter that the brown brook trills
Under the shelter of low-stooping trees.

A car clanged distantly. Across the way
A drowsy watchman waked with sudden fright.
On the dim court a soft enchantment lay.
I heard the wild ducks passing in the night.
Rose Henderson.

A MODERN CRAFTSMAN IN WROUGHT IRON: WORK THAT RIVALS THE INDUSTRIAL ACHIEVEMENTS OF THE MIDDLE AGES: BY C. MATLACK PRICE



N the days of the Renaissance artists and artisans found a wide field of expression in wrought iron—a branch of the metal worker's craft that is now rarely developed. Iron is not so friendly to work with as copper or brass or the more precious metals, and most craftsmen lack the courage and perseverance that led the workers of former days to seek the beauty and

interest that lie dormant in this uncompromising, sturdy metal. Nowadays we rarely see equaled the lovely gateways, railings, hinges, knockers and door pulls whose intricate traceries of leaves, flowers and scrolls grace the churches and homes of old Bavaria and tell over and over again the story of patience and care and skill that went into their making. Except for rare evidences of life in the efforts of a very few workers today, the craft is as dead as the men who practiced it long ago.

During the thirteenth and fourteenth centuries in Italy wrought iron was extensively used for screens in chapels and tombs and for grills in windows and doors. In the work of this period and the following century great skill was shown in handling the material, and there was a keen feeling for appropriate design. The art also found excellent expression in Spain during the Renaissance, as well as in the various periods in France and Germany. Much of the early ironwork in New Orleans was the product of Spanish or French artisans, and the best and oldest houses farther north showed the skill of the English and early American metal workers.

The advent of cast iron marked the beginning of the end of fine wrought work, and the smiths who fashioned the beautiful grills and railings of the Colonial period soon became extinct. The results of casting iron cannot be compared with the products of hand-fashioning, for, as in any imitation, the result is base and lacking in appeal to either artist or craftsman. Cast ironwork cannot be other than blunt and spiritless; the iron contracts greatly in passing from the fluid to the solid state, so that any fineness or delicacy of ornament is quite lost in the process, no matter how carefully the mold is made.

Through the medium of wrought iron, however, at least one modern craftsman—Mr. Samuel Yellin of Philadelphia—has achieved remarkable results. The resolve to make the practice of this craft his lifework is perhaps one of the reasons for his success in it, for this metal demands of the worker long study and practice in order to attain

A MODERN CRAFTSMAN IN WROUGHT IRON

proficiency in handling it. In a medium so stubborn, the worker must be both designer and smith, for every hammer stroke is an integral and important part of the actual design, and the work of the designer does not end with the conception of an idea or putting it on paper. If he would see it carried out as he desires, he must blow the forge and wield the hammer himself. Most often the smith is too much artisan and too little artist, but Mr. Yellin's work shows evidence of a rare combination of both attributes. His efforts are directed against the modern acceptance of easy, slipshod methods in craftsmanship, and the products of his hands must surely carry his point, were any question raised as to the desirability of reviving the fast-dying standards of metal work. It is doubtful, indeed, whether he has a peer today in his chosen work, which with him is also a creed and a mission.

Generally speaking, Mr. Yellin prefers to employ only what is known as Swedish iron, as it is more ductile than any other and is most suitable for the more delicate portions of the work. In addition to a use of this iron as a raw material, he has also succeeded in fashioning many interesting and ornamental forms from various irons of

"stock" section, such as "channel" and "angle" irons.

R. YELLIN admits that even wrought iron, if lifelessly and mechanically handled, without taste or spirit, is a "dead" material, lacking not only intrinsic beauty, but also whatever merit it would possess if it frankly expressed its character. It is this quality of character which is such an essential feature in Mr. Yellin's work. The very spirit of the fire that forged it seems imprisoned in the graceful forms of the iron, and the ring of the hammer on the anvil seems almost to echo in the ear. There is a crispness about the detail and clean-cut sharpness about the outlines that bespeak the virile craftsman who though the "lyf" be short has "lerned" the craft.

Mr. Yellin deplores the modern tendency to cover all ironwork with paint, for even one coat covers all evidences of hand work, dulling the sharp outlines and filling the deeper interstices of the design. A piece of painted wrought iron simply resembles cast work, and the practice is quite as stupid as would be the painting of a fine piece of oak paneling. The craftsman who loves the material in which he works—as all true craftsmen must—naturally does all in his power to discourage anything which will make it other than a frank expression of its own texture and his own handiwork. Mr. Yellin, feeling with a true pride of craft that his work is not necessarily done when it leaves his hand, has therefore invented various transparent preservative fluids which he uses on his ironwork. His endeavor to further an appreciation of the inherent beauty of the material should go far to supplant the cur-



A PAIR OF PARK GATES IN WROUGHT IRON, DESIGNED AND EXECUTED BY SAMUEL YELLIN: IT IS INTERESTING TO NOTE THE INCISED DECORATION ON THE FLAT BARS AND FLANGES, ALSO THE GRACEFUL FLOURISH OF THE LEAF LEVERS AND THE STRUCTURAL INTRODUCTION OF THE SCROLLWORK, BOTH ABOVE AND BELOW THE LOCK PLATES.



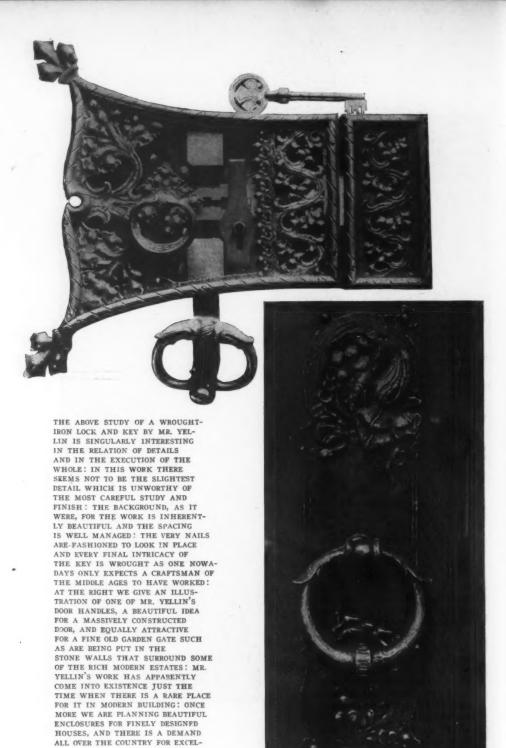


WROUGHT-IRON FITTINGS FOR A DOOR, HINGE AND BOLT, THE WORK OF MR. YELLIN.



DETAILS OF A CHANCEL SCREEN DESIGNED AND EXECUTED BY MR. YELLIN: THIS ELABORATE PIECE OF WORK SEEMS SO BEAUTIFULLY WROUGHT BOTH IN DESIGN AND TECHNIQUE THAT WE FEEL IT WORTH CAREFUL STUDY: THERE IS A STRICT ADHERENCE TO STRUCTURAL PRINCIPLES AS STRUCTURAL PRINCIPLES AS WELL AS MOST EXQUISITE TREAT-MENT OF DETAIL: THE TEXTURE IMPARTED TO THE PANELS FORMING THE BASE IS PARTICULARLY IN-TERESTING AND INCIDENTALLY WOULD BE QUITE LOST UNDER A COAT OF PAINT: THE DIS-POSITION OF THE LOCK AND ITS ORNAMENTATION, ITS RELATION TO THE WHOLE ALL PROVE MR. YELLIN A RARE CRAFTSMAN OF MODERN TIMES.





LENT CRAFTSMANSHIP IN IRON,

COPPER AND BRASS.

A MODERN CRAFTSMAN IN WROUGHT IRON

rent practice of applying paint to ironwork, and should further stimulate a keener feeling for higher standards of craftsmanship in

wrought iron.

As a decorator this craftsman shows a comprehensive knowledge of constructive principles, and admirable taste and reticence in the disposition of ornament. While it is interesting to note that the motifs in the designs are inspired entirely by the natural growth of plant forms, the point of paramount importance is that in every case the ornament is studied in reference to the material in which it is executed. Although this is the most elemental principle of applied decoration, it is one which is constantly disregarded by craftworkers. Burnt leather work often appears on wood, and details of wood carving are inappropriately transferred to some utterly foreign material.

Here, however, the ornament is in exactly that happy mean between delicacy and strength which is the natural growth from the malleability of the iron when hot and its hardness and rigidity when cold. Mr. Yellin has not attempted florid arabesques or frivolous rococo work—his feeling seems rather to lean toward an almost Mediæval primitiveness in the decoration of the locks, and in the screens and more monumental work there is a tendency toward the splendid prece-

dent of the Renaissance.

It is safe to say that no other work approaching the quality of these locks is to be seen today, or is even being attempted by any other metal worker; the several examples exhibited by Mr. Yellin in the recent architectural exhibition in Philadelphia were unique in the craft technique of modern times.

THE sincerity shown in the execution of these locks is manifest in the faithful attention to detail in all the work. The keys are the vehicles for little quaintnesses of design, and conform in character to the decoration of the locks themselves. In all the work there is manifested a wise use of construction and of ornament. It is as rich as befits a stern and rugged metal, and while there is no attempt to imitate the sumptuousness of carved bronze or the delicacy of the silversmith, yet none of the pieces is severe or unimaginative. Each is a work of art and perfect illustration of every tenet of that high order of craftsmanship taught by William Morris. For all are both useful and beautiful, well designed and well executed, and in no instance does one quality predominate.

In the fittings for a glass door Mr. Yellin has struck a more modern note. His rugged, yet finished craftsmanship, however, speaks with no less strength in this more sophisticated expression than in the massive locks. There is the same reserved feeling for pure design

A MODERN CRAFTSMAN IN WROUGHT IRON

and the relation of the design to the material in which it is carried out.

The detail of the park gates shows the master metal worker in still another vein, in a design which combines a certain flamboyant grace with the necessary expression of strength. The iron has been bent into free and supple scrolls, with leaves formed by beating the metal out thin. This pair of gates resembles in character German ironwork, and serves to illustrate further Mr. Yellin's versatility and his complete mastery of his material. Note the incised decoration on the flat bars and flanges, and also the graceful flourish of the lathe levers and the excellently structural introduction of the scrollwork above and

below the lock-plates.

In the intricate design for the chancel screen Mr. Yellin seems to have been inspired by the artificers of the Spanish Renaissance. An adequate appreciation of the values of this wrought ironwork depends upon a study of its design not only as a whole, but also in detail. There is a sense of general proportion in the whole and relative proportion in its parts that indicate a genius for design quite as much as does the disposition of the ornament in the locks. There is a strict adherence to structural principles which has made the design of the several parts logically appropriate to their several functions in the construction. The treatment of the entablature is excellent, for the moldings are properly light, and the frieze is adequately handled, both structurally and decoratively, with its alternated spindles and oval The broken pediments suggest more perhaps than any other feature the character of the Spanish Renaissance, and the same excellent proportioning of the parts with their structural necessities frankly revealed is as evident here as in the lower part. Note the texture imparted to the panels forming the base—a texture, incidentally, which would be completely lost under a coat of paint; note also the disposition of the locks, which are similar to those shown in a larger scale.

As a material for objects that demand strength with not too great a bulk and some decorative interest, the remarkable ductility and malleability of iron in a red-hot state should commend it to craftsmen. It may readily be drawn into bars of any caliber, separate pieces may easily be welded together under the hammer, and repeated hammering, drawing out and annealing give it only greater strength and toughness. It is remarkably adaptable to the construction of screens, grills, hinges, andirons, fire-sets, knockers and all forms of ornamental metal work. In its hot plastic state it is possible to attain a high degree of refinement in modeling, and its great strength makes it possible to beat it out into ornaments of extreme thinness.

BOYHOOD DAYS WITH JOHN BURROUGHS: BY JULIAN BURROUGHS: PART FOURTH

T has always seemed to me that father possessed the sixth sense, what I call the sense of proportion, which in a measure is only another way of saying that he knew himself. Yet unlike Goethe, he was not a mere onlooker in life, he actually lived with everyone and in everything about him as much as he could. Often I have felt that he was too sensitive and conscious of the

influence and criticism of others. Sidney Lanier has said that an artist is he who walks alone amid a thousand friends. If this is so, and I feel that it is not, father was not an artist in any sense. On the contrary, sympathy was one of his strongest emotions; his own life was most real to him, as were the lives of his friends. His capacity for joy and pain was great, his pleasures many and his sufferings acute. On the other hand, father would never lose a battle for the want of a horseshoe nail; he never allowed what he always contemptuously called "things" to get the upper hand; without being irresponsible or negligent he would not let petty chores or tasks or the paraphernalia of living vex or prey upon him. Whenever I complained of lack of time because of the things I had to do he would tell me that his lifelong friend, the poet Myron Benton, had said that when his wife died he would put on her tombstone "Killed by 'things."

Those who have this sixth sense are always democratic, and surely no one could be more democratic than father. The conditions we call social position or wealth never have influenced his own conduct or attitude toward anyone. The club, society, the smoking-room were not for him-he liked the people who were wholly themselves, who were often humble and picturesque, having strong personal traits. Country people, woodsmen, farm help and all those who made their living at first hand, from the soil or a trade; in short, those whom the economists call productive laborers, he liked both personally and in their manner of living. Young people, both boys and girls, he loved and always took a keen interest in their company. Many of our happiest days have been spent in picnics, trips on the water or mountains with parties of young people, father always seeming the youngest "Come to Slabsides" was an invitation often given and jolliest of all. and accepted, the rocks and woods echoing many a day with the

Father had the keenest relish for fun, for wit, for play, for slang, even, provided it was free from smartness or malice. Once I remember his fun met an unexpected reception. In going for the family quart of milk every morning, father had to pass under some big chest-

laughter and voices of young folks.

then a small boy, a handful of chestnuts. One morning he told me most graphically how sorry the squirrels were to see their chestnuts taken, how it was all they had to eat, how they sat on the limbs overhead and, crying in distress, pleaded with him not to take their nuts. This made me so mad at him, and so sorry for the squirrels, that I took all the chestnuts he had spent time in laboriously gathering from the fallen leaves, ran back to the tree and scattered them far and wide! My sympathy for the squirrels did not extend to my own cat, however, which I delighted to hold over the open well just to see her wild eyes and struggles, until father caught me at it and promptly held me over the well, telling me I then knew how the cat felt, an effective les-Never can I forget the picture of the two lost dogs that I saw when visiting the Century Magazine offices with father. Doubtless the dogs themselves would not have appealed to me half as much as did the picture, which almost made me sick with distress at their fate. So ever is the imagination more powerful than reality!

NE of the treats of my boyhood was to go camping with father. His wisdom in all things relating to camp life, the universality of his interests, his love of all nature and of all woodland sports made him an ideal camper. Of his camping in Canada, the Adirondacks and in the earlier days in the Catskills he has written in his books. With me he generally went into Woodland Valley, or as we called it "Snyder Holler," in the nearer Catskills. Here in one of Larkin's upper fields we could look over the forest to Slide Mountain, a mountain father always loved and venerated, going often to gaze at it when his strength did not permit climbing. Wittenberg we often climbed together. Father was always finding something of interest. either interviewing a porcupine, greeting some forest bird, finding a rare flower and telling where and when he had seen it before, or noticing some animal or insect. One evening in camp he was going to the spring thinking, he said afterward, of a partridge when, as if in obedience to his thoughts, a grouse jumped out of the bushes, and ran in the path ahead of him, a curious incident that completely startled him, used as he was to partridges.

We would roll two stones near each other, building our fire between them; then if a sheet of iron was to be had we put that over the fire, resting the edges on the stones, thus making a really good stove on which we fried our trout and bacon. Father loved to go berrying, picking wild strawberries, billberries, raspberries or blackberries, whichever was in season, a habit he had formed on the farm when there was no cultivated fruit. On these camping parties we took with us two real army blankets that father got in Washington during

the war, and now after fifty years of hard service, frayed and smokescented, the very sight of them recalls the camp-fire, trout stream and bed of balsam. When one is lulled to sleep by the many-voiced trout stream there is nothing more delightful than a properly made bed of

boughs.

Father has often said that he would have made a good doctor, a statement that I believe is true; in fact, his study of the needs of the body, the "human engine" as he calls it, has been so careful and so relentlessly carried out that today, in his seventy-fifth year, he declares that he works easier than ever before. Though not as strong as regards mere muscle, he is otherwise stronger and in better health than ten years ago, a condition mainly due to following that Greek saying "Know thyself." And with the strength of knowledge has come the strength of denial; he has not only learned what not to eat, but learned not to eat it-often when we have had most tempting baked apples for supper he has looked at them longingly, saying he could eat every one, but must not, turning to his hot water and ovendried bread, a rigorous discipline that he carries out in all his living. On our trip to Jamaica in nineteen hundred and two, the only really big trip we have taken together since I have grown up, father was wretched most of the time, suffering, without knowing what was the matter with him or the cause or cure, all the time from autotoxemia. In fact, nearly every year he had this, thinking it was malaria, doctoring accordingly, getting up all kinds of insect orchestras in his head from the enormous doses of quinine he took, until one winter he discovered the true cause. Since then the "malaria," and its accompanying neuralgia, chills, sore throat, fever, etc., rarely returns.

Jamaica, and the sight of a graybearded white man on foot was a real novelty to the swarms of negroes. Often, especially on market days, they walked with us for miles, father always asking them the most intimate and personal questions, which they answered with astonishing freedom and candidness. One unusually bright colored boy, after tramping with us for miles, told father, after several abortive attempts to express his

idea, that such good company made the road seem short, an entirely original saying on the part of the boy and one that pleased father much. In a drugstore in Port Antonio, Kellogg, who was with us, for fun told father's name to the colored girl at the soda fountain, and to our surprise and pleasure she not only knew of him, but had read much of his writings. A little girl in the same city, where we spent a day, insisted that father was Santa Claus, refusing to believe he was not,

a belief that quite touched his heart.

In the mountains father found many of his bird friends who were spending the winter months amid the coffee and tree ferns. The native solitaire, or "shine eye" as the negroes call him, a dark bird with a white circle about his eye, shy and elusive, with a note like our thrush, attracted father very much, his watching and listening being rewarded both by hearing and seeing this rare songster of the tropical mountains. The "doctor" a big, swift humming-bird with a long streamerlike tail, the brown mango humming-bird that we saw gathering spider-webs for nesting material, the banana quits, the dignified pelicans, the wandering tattlers that we saw on a lonely, cocoanutrimmed beach, as well as many others, were new and most interesting to father, but he soon learned to know them well.

TO wild creature, from hawk to 'possum could come to Riverby without arousing most keen interest on father's part. And our visitors were many-we raised the young of woodchucks, wild rabbits, a marsh hawk, and had for pets red and flying squirrels as well as a raccoon and several skunks. There is a saying among country folk that a skunk can be safely carried by the tail, a saying that some naturalists deny. Father determined to try the question for himself, his courage being equal to the task. Every time that I caught a skunk about the house I let father have a try at him. First we carefully shut up the dog, much to the latter's disgust; then the skunk was gently lifted on a pole and dropped into an empty barrel, the trap being opened over the edge to liberate him. In a few minutes, or as soon as the skunk had become used to the barrel, father would reach in, clasp him firmly by his plumelike tail and raise him aloft, always being careful not to let the animal get his front feet on any near object. This we repeated over and over without accident, proving beyond a doubt that the skunks of Ulster County, at least, can be safely carried by their tails. We had wild ducks, too, and many of the bird visitors became almost like pets, father putting up nest-boxes, in winter scattering chaff or fastening suet to the tree in front of his study window, where he could watch them eat.

It is inevitable that anyone at all known to the public should

receive many letters from strangers. Though father does not receive as many as some public men, those that do come are very often most interesting, often humorous, sometimes pathetic, rarely abusive. The writers are often impatient and insistent for a reply. A man in the West once wrote to father at length, and because he did not get an immediate reply (father was sick at the time) he wrote again in a most bitter and sarcastic tone, as if he had actually received a reply to his first letter, in order to make the sarcasm stronger. As soon as he was well enough, father answered both his letters, explaining kindly the reason of his slowness. The man was then really apologetic. More often the letters are from people who have seen or been told of some happening in nature, generally something that had taken place several years before and which was often unusual, if not impossible or even ridiculous. One letter came from a retired minister in New England who told two yarns about a pig and a cat, both laughable and impossible. Father answered, telling him his opinion of the stories in a rather fun-making and jocose way, to which the minister replied with savage, sarcastic abuse. Father again wrote, patiently telling him to take his story before any of the authorities on comparative psychology, naming a half-dozen, and if they did not tell him that he, father, was correct he would walk to New England with peas in his shoes and apologize. Rarely did a letter contain nature observations of real value; more often the writers simply related what they had heard, or else were themselves inaccurate or prejudiced. One little girl wrote from a Western school to ask if birds had sense, a question that tickled father mightily, especially as the little girl wanted an answer to steal a march, as she said, on the other scholars, who were to have a bird discussion.

All human activities, from chemistry to whaling, hold great interest for father, either in an emotional and intellectual, or in an entirely intellectual way. Music, painting and sculpture alone appeal to

him from a purely emotional standpoint.

This day, April twenty-fifth, nineteen hundred and twelve, he is working on an essay of a philosophical nature, the earlier hours having been spent in glancing over the newspaper, dictating letters, walking to the post office and playing with his grandchildren. This afternoon doubtless he will read, work in his garden, cut wood or go for a walk of several miles, and in the evening he will read. If I can be permitted one wish, it is (since I know he is "both an honest and a humble angler," as Izaak Walton says) that the east wind may never blow when father goes a-fishing.

(Concluded)

A PRACTICAL SCHOOL SYSTEM AIMED TO DEVELOP CHILDREN'S CHARACTER AND PERSONALITY: A WESTERN IDEA: BY ELOISE J. ROORBACH

T is often said that the American boy and girl surpass the boys and girls of all civilized countries in their ability and eagerness to learn and do things, yet that they are lacking in their capacity to think logically, consecutively and deeply. The fact that they are clever, apt and mentally agile, yet timidly hesitate to force their minds into new channels, that they are

without the desire to penetrate to the root of any matter, is due entirely to our present public-school system of education and not to any inherent weakness of the children. All originality has been steadily crushed out of them and all self-expression discouraged, nay, even severely punished at times. A ridiculous insistence upon the child's learning all lessons by the exercise of memory and by reciting them by rote with but a feeble understanding of what it was all about is respon-

sible for recognized lack of mental virility.

Education should mean the developing of life power, should be a help to the understanding of oneself, an awakening of dormant powers with a knowledge of how to use them. How seldom does this knowledge of education shape the public-school ideal of our land! How rare is the public school that includes manliness and womanliness in its curriculum, that graduates a boy or girl with as full knowledge of self-development as of ancient history or so-called sciences, that confers degrees of personal honor and integrity as well as B.A.'s or Ph.D.'s! Is it asking too much that, as someone has said, the degree of M.S. (Master of Situations) be added to balance bookish scholar-

ships!

I. H. Francis, Superintendent of the Schools of Los Angeles, is one of the illumined educators who believe that educational limitations are not inherent in the children, but the result of our kinds of system and the teachers. He is, therefore, in accordance with his convictions, devoting himself so efficiently to correcting the evils of the present educational methods, that the schools under his management are rapidly being accepted as models for the wise simple training of children. He has instituted reforms that will no doubt shape the whole public-school system of America. So important an authority upon education as Dr. A. E. Winship of Boston, editor of the Journal of Education, who has several times traveled the width of the continent to work with Mr. Francis, in a recent address upon "Efficiency in Education" made the following announcement: "I believe that Los

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Angeles is ahead of all cities in the United States in progressive school work, and I know what I am talking about because in the last eleven weeks I have visited the schools of twenty-nine States, making studies of educational matters. These schools of Los Angeles are fine because they have got away from the routine which has wrecked so many children. By the system installed in the public schools of Los Angeles the boys now willingly stay in school. There are twice as many boys in the schools under the present efficient management as in any other city in the country with the same population. The boys are carefully led up to school work and are kept contentedly there

because of the superiority of the methods practiced."

Mr. Francis says of the need of such reform in our schools: "We have in the past been asking the pupil to recite what he has just read from the pages of a text book that should never have been published. The lesson begins on page ten and ends on page twelve, and except for these pages begins nowhere and ends at the same place. Since passing the pupil through the grade rather than passing the grade through the pupil is the thing to be desired by him and too often by the teacher, principal and superintendent, and since this is accomplished through satisfactory recitations, the recitation in turn becomes the important activity of the average schoolroom. Thinking is of minor importance. The time, energy and life wasted in recitations in the American schoolroom would serve as the comedy of the ages were it not the tragedy."

HE basis for the reform which Mr. Francis has inaugurated, is to create in the child ability to think in a way that is essentially his own, thus doing away with all committing to memory or routine thinking, to develop social- and self-responsibility; to stimulate interest in useful knowledge; to aid the boy in finding out his possibilities and then to give him sympathetic guidance and help along these lines. Mr. Francis feels that much experimenting is generally necessary on the part of the pupil before he is able to find out his real bent, and therefore different courses have been laid out to furnish ample opportunity to test various interests and talents. When the adolescent youth begins to inquire, reason and judge, he must have material upon which these qualities of mind may work, so in the intermediate schools he is allowed to try his powers in various courses until his preferred bent is discovered, and then he is given the best obtainable instruction in the direction chosen, that he may early reach efficiency along the lines best suited to further his development thus awakening his interest in his own progress. The value of such an opportunity for boys cannot readily be estimated.

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THE intermediate schools of Los Angeles offer three distinct courses, and the high schools between forty and fifty. Of the three intermediate courses, the industrial course aims to lay the foundation of industrial life for the boy and to give a general preparation in home economics for the girls. The commercial course undertakes to give the pupil an earning capacity in clerical work and in accounting. The other course is for those who wish a general culture, one which leads through the high school to the university. There are seven fully equipped day high schools offering classical, literary, scientific, commercial, manual and agricultural courses. Each of these schools has good courses in music and art, and each offers preparatory courses to the normal school and university.

The ideal toward which Mr. Francis is working has its roots in the kindergarten, which he believes is a prophecy that some day the nursery shall be an integral part of the public-school system. His plan is to give much attention to the six years of elementary training which assumes responsibility for the physical, mental and spiritual development of the child between the ages of six and twelve. "Because of economic and social conditions," says Mr. Francis, "and principally because of the folly of educators hiding behind the gray old fallacy of conservatism, this age limit too frequently reaches thirteen, fourteen and even fifteen, thereby robbing the individual of the most sacred thing in all the world—his latent pride and confidence in the efficiency and power of his own personality. Fortunately the boy, for it is usually a boy, finds some sort of deviltry in which to give expression to this personality, and thereby retains a portion of it which his good sense may later lead him to turn into legitimate channels." The three years of intermediate work which comes next is of utmost importance as "the base of society always has been and always will be, more important than the apex, for the simple reason that it acts as a support to the apex."

These intermediate schools offer every opportunity and encouragement for the development of self. "Too much is being attempted for the child and too little by him. Too many safeguards, restraints, too much protection, advice and guidance will not produce a race of men and women with the mettle of our fathers and mothers. They developed character within themselves through early sharing the responsibilities of life. Somewhere below the university and below the high school we must lead the individual to recognition of the fact that the world owes him just what he is worth to the world, and he owes himself just what he is worth to himself." Five years in the high school following the crucial intermediate schools will bring the child to the age of twenty. "A good average age to begin the business of life."





LAND FOR SCHOOL GARDENS HAS BEEN LOANED MR. FRANCIS THAT HE MAY WORK OUT HIS PLANS FOR MAKING GOOD GARDENERS OUT OF SCHOOLCHILDREN: THESE TWO SCENES GIVE ONE SOME LITTLE IMPRESSION OF THE SUCCESS THAT CHILDREN HAVE HAD AND THE JOY THEY EVIDENTLY TAKE IN THE WORK.





THE CHILDREN IN MR. FRANCIS' SCHOOL ARE NOT ONLY TAUGHT THE VALUE OF MANUAL TRAINING IN A GENERAL WAY, BUT THEY ARE ALLOWED TO WORK EXTRA HOURS. IN FRACTICING THEIR FAVORITE TRADES, AND THE FURNITURE THEY HAVE CONSTRUCTED AND THE RUGS THEY HAVE WOVEN POSSESS A RARE DEGREE OF TECHNICAL SKILL.





THESE SAME SCHOOLCHILDREN ARE NOT ONLY WEAVERS OF RUGS BUT OF LINEN AND COTTON GOODS: THEY ALSO EMBROIDER FROM THEIR OWN DESIGNS, THEY SKETCH INTERESTINGLY AND THEY ARE TAUGHT TO MAKE THE COMFORTABLE LITTLE HOME FITTINGS WHICH ADD SO MUCH TO HOME BEAUTY.



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THE GIRLS HAVE A SPECIAL COURSE FOR DOMESTIC SCIENCE TRAINING IN THE LOS ANGELES SCHOOLS AND LEARN NOT ONLY TO SEW BEAUTIFULLY BUT TO DESIGN CLOTHES AND TO FIT THEM: THEIR PREFERENCE SEEMS TO BE FOR THE MAKING OF LITTLE GARMENTS, WHICH WOULD INDICATE A VERY GENUINE HOME INTEREST.

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Every encouragement is given to every pupil in every grade to attend an agricultural high school for Mr. Francis believes that every boy and girl should possess some knowledge of the soil. At a number of the schools the experiment has been tried of portioning a piece of ground into tiny plots and giving a plot to each child. Various plans have been tried as to the best way to conduct lessons in practical gardening. At the Twentieth Street School a lot one hundred by one hundred and fifty-five adjoining the school was divided so that all the children had tiny gardens in which they were permitted to exercise their own wishes as to what should be planted and how it was to be planted. All seeds were furnished either by the Government experimental stations or by the Los Angeles school board. Some children placed borders of flowers around the whole bed, some devoted the whole space to vegetables of various kinds, some concentrated their efforts to one or two vegetables such as lettuce or radishes; proudly and thriftily selling the produce to family or friends. The piece of land one hundred by one hundred and fifty-five was so portioned that each of the twenty-two rooms was allowed a space of fourteen by seventeen feet. This in turn was divided so that each of the forty-eight children, in each room, obtained a tiny bit of land two by five feet. The energy, skill and joy with which the children attacked their garden work was inspiring to witness. They dug, watered, raked, planted and weeded like an army of industrious ants, taking such a genuine interest in the labor that with almost no exception they cultivated gardens of their own at home, weeding and tending them before and after school hours with the same thoroughness they exercised over the school gardens. It was astonishing to see the originality displayed in these tiny gardens, and the amount of lettuce, beets, carrots, potatoes, onions and flowers that these children farmers got out of the soil was almost unbelievable.

Each child has a little "garden book" in which is set down the date of planting, the depth, distance apart and date of the seeds' first appearance above the soil. These books are made entirely by the youthful authors and gardeners and are models of neatness and exactness. In some cases they are decorated with drawings of a jar, hoe, spade, flower or some such ornament, suitable, according to their ideas, to adorn the cherished book. The children were often permitted to work in their gardens at odd hours without the presence of the teachers; this developed an understanding between pupils and teachers that was seldom violated by the mischievous tricks liable to crop out in any boy or girl, such as pulling up the hated rival's turnips, pinching back the tops of his onions, or breaking down his nicely

made edges or paths.

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THE land used by the various schools has in every case been loaned to the schools by interested owners, who often fenced it at personal expense. One large field that was too encumbered with tin cans, junk, rubbish of all kinds for the little children to put in order, received its initial clearing by a gang of convicts, loaned by the city, who labored with unusual zeal to clear and plow the field and get it ready for the swarm of little ones impatiently waiting their chance to dig and plant. Hand in hand with practical instruction in seeding, conservation and fertility of soils, run all unconsciously lessons in nature study, so that a vital, uplifting interest is developed in the

child for the beauty as well as for the bounty of the earth.

The methods of school gardening as outlined by Mr. Francis have been tried with equal success in Portland, Oregon. The recent school garden contest held in the large armory there, attracted universal and lively interest and showed what the well-directed energy and persistence of six thousand children can accomplish. One boy with a bit of ground thirteen feet square, divided into four quarters by paths bordered with flowers, had grown every vegetable for which it was possible to receive a prize. Another boy thirteen years of age whose garden received the second prize for best display, announced that after he had finished the high school he was going to the agricultural college and "This year I have been studying take a course in scientific farming. my soil with a view to growing in the future only what is best suited to it," said this Lilliputian farmer, who had conducted his small experiments in intensified farming (his farm was but one foot square) with such whole-souled devotion and interest that he had been able to sell many a bunch of lettuce, spinach and radishes, netting quite a sum toward future needs and experiments. Besides the individual displays, were replicas of school gardens, samples of all that had been grown in one hundred of the gardens. This school contest and exhibition aroused State interest, and every school in every district received a genuine stimulus toward the establishing of garden courses. At the close of the exhibition an auction of all the produce was held, the proceeds going to the School Garden Contest Fund, as a nucleus for the next year's exhibition.

The photographs accompanying this article all illustrate work of the Los Angeles schoolchildren, who because of the wise guidance of Mr. Francis are trained in the use of their hands as well as of their minds. An examination of the work shows a deftness of hand and originality of mind that would be praiseworthy were it the work of "children of a larger growth," and it is surprising indeed to realize that it is all the work of mere children. The neatness of sewing, exactness of cabinet joints, grace of pottery designs, eleverness of

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poster drawings (with now and then fascinating touches of humor) show that the children of the public schools are receiving the all-round

development of faculties that is the only true education.

This system of public-school instruction includes besides the regular manual training, trade schools, admitting pupils according to physical development irrespective of academic attainments; continuation schools which are open before and after school hours giving additional help in manual work, music, art, mechanical drawing, etc., and night schools of all grades and for all classes of people; special schools for the unsocialized individual who refuses to adjust himself to the regulations, formalities and conventionalities of the schoolroom. There are also the vacation schools. These are intended to occupy the time of the younger children (who would otherwise be on the street) in music, folk-dancing, play, gardening, language work, etc., and also to furnish regular academic work for those who wish to make up subjects in which they have failed.

Those who have seen the demoralizing effect of vacations upon street children, and indeed upon all children, will realize how deeply this remarkable man has entered into the fundamental needs of human nature. Such a thinker in a community is a blessing as well as an education to both parents and children. Mr. Francis has a sympathetic and magnetic personality. He impresses his ideas and convictions without effort, the old-time resistance to advanced methods seems to melt before his earnest and hearty common sense, and more often than not he receives ready acceptance and cooperation from parents,

teachers and children.



PLANTING THE SCHOOLYARD FOR THE HAPPINESS AND CULTIVATION OF CHILD-HOOD: BY HALVORSEN HOUGH

ARREN ugliness, scars of abuse, heat, gravel and tar walks would be a constructive formula for a school-yard of the type that until recently has been universal, except in those blessed little spots tucked away in green corners of the earth where even the traditional brook is found. It has been the happy province of the school garden to make the desert blossom, and

with that blossoming to bring opportunity for developing character by contact with green, growing things, the actual beautifying of property and the fostering of a wholesome respect for the same. It has furnished also delightful setting for childhood activities, and direct lessons in the science of agriculture and horticulture.

Every work of improvement, however, brings its problems and the problem of the school garden is not alone that of soils, fertilizers, plant foes (bugs, worms, weeds, scales, damp and drought), of varieties and arrangement, but of such practical questions as, Who shall assume the burden of responsibility? How shall we bridge the vacation period? What shall be the basis of selecting children to work in the garden and when shall they do their work? Shall the freedom of the open be granted as a reward to the child that has done well, or offered to the child that declines prescribed work indoors, as an inducement to keep in school, and when in school to keep busy?

Teachers, already crowded to the verge of distraction with the details of registers, marks, examinations, bookcases, requisition blanks, special exercises, not to mention such incidentals as class work and parents, may not welcome the intrusion of still another care. The children on the other hand, cannot select, order, finance, prepare and plant without supervision, instruction and actual physical assistance.

Different localities will find their own ways of solving the problem, either in the women's clubs, the mothers' associations or other groups of citizens, and each school garden may always count upon a reasonable amount of help from teachers and janitors, whose natural pride in the building will make them ready assistants. One way of solving the problem is shown by the accompanying illustrations of the Tracy School at Lynn, Massachusetts.

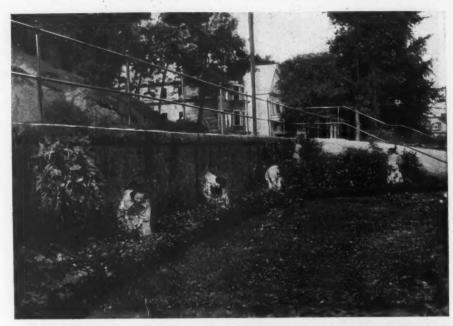
Garden-making offers excellent opportunity for making virtues of necessities. Practically all garden sites have landscape features impossible or inexpedient to remove. The long, high, severely virtuous fence that separates the schoolyard from the neighborhood backyards is indispensable. Its value, however, is anything but æsthetic. It





A VIEW OF THE GROUNDS OF THE TRACY SCHOOL, LYNN, MASS.: TWO CHILDREN WHO HELPED TO MAKE THE GARDEN ARE IN THE MIDST OF IT.

A FLOWER PATH RUNNING ALONG THE SCHOOL FENCE AT THE EASTERN BOUNDARY: THIS FLOWER-BFD IS PLANTED WITH DAHLIAS, HOLLYHOCKS, FOXGLOVES, LARKSPURS, HARDY CHRYSANTHEMUMS, SINGLE PERENNIAL SUNFLOWERS, GOLDEN GLOW, PETUNIAS AND SWEET ALYSSUM.

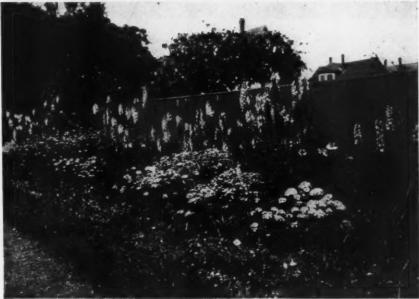




THE LITTLE SCHOOL GARDENERS WEEDING AT RECESS: THIS DEEP STONE WALL IS COVERED WITH WOODBINE AND NASTURTIUMS: HARDY PERENNIALS GROW IN A RIOT AT THE BASE.

THIS IS THE SOUTH WALL OF THE SCHOOL WHERE THE CHILDREN HAVE PLANTED BOSTON IVY, WITH A NARROW BED OF CROCUSES, HYACINTHS AND TULIPS IN EARLY SPRING, AND GERANIUMS LATER ON.





THIS PLOT OF GROUND IN THE SCHOOLYARD IS CALLED THEOASIS: THE CHILDREN HAVE PLANTED IT WITH CANNAS, GERANIUMS, HELIOTROPE AND PETUNIAS.

AN EASTERLY SECTION OF THE SCHOOLYARD AT LYNN: HERE THE CHILDREN HAVE PLANTED FOXGLOVE, CANTERBURY BELLS AND SHASTA DAISIES, WITH A FILLING IN OF MIGNONETTE AND OTHER MODEST FRAGRANT TREASURES.





TWO PLOTS IN THE SCHOOLYARD WHEFE THE CHILDREN HAVE LAVISHED SPECIAL ATTENTION NOT ONLY IN THE CARE OF THE PLANTS BUT IN THE SELECTION OF THE VARIETIES WHICH WOULD FORM THE MOST INTERESTING ARRANGEMENTS.

CHILDREN GARDENERS FOR THE SCHOOLYARD

can be made the shield and buckler of the garden that nestles at its base, and softens and graces its cold, formal lines, and many a stately, sturdy hollyhock, foxglove, dahlia and cosmos owes its length of days and stem to the friendly shelter of the fence. Perennials often start into spring growth two or three weeks the earlier for its protection, and seeds for all the annuals can be tucked into their soft earthy quarters decidedly earlier here than in more open situations.

At the warm base of the south wall of the building itself, tulips, hyacinths, crocuses blossom when the snow is scarcely melted. In the open yard, a bed here and there, with a tree or group of trees relieve the bareness. The sturdier and more effective plants, cannas, grasses, nicotianas, are chosen for dignity in the garden; geraniums, petunias, verbenas, furnish color; heliotropes and mignonette contribute fragrance; and all the sweet alyssum possible is crowded into a foot-wide border that runs the whole length of the grounds. The cannas, dahlias and other bulbs are wintered in the cellar of the buildings, and the geraniums in the windows of the schoolrooms.

UCH of the work, once done, is finished for all time, with easy patching up from year to year. The first cost involves the preparation of the beds by replacing the gravel with loam to the depth of a foot, well enriched with pulverized sheep manure and ground bone, which are the easiest forms of fertilizers to use, especially if the ground cannot be put in readiness the fall before it is to be planted. Almost any of the reliable firms for seeds and nursery stock will give special rates for such undertakings, and having selected the dealer, the next step is to make out the order carefully, choosing the hardier things as not only being better able to cope with the rigors of winter, but also less resentful of unprofessional and possibly clumsy ministrations. Some of the little hands that dig among the flowers have never held a seedling between the thumb and finger, and until trained, rarely strike a happy medium between leaving a plant to gasp with bare roots fairly upon the surface and burying the same forever beyond the light of day.

Then comes the planting, refining the soil until it is mealy, observing scrupulously the directions on seed packets and in catalogues, supplemented preferably by the experience of someone versed in gardening and able to discriminate between sun-loving and shade-lov-

ing plants.

The last sentence reminds the writer of a shady schoolyard where the magnificent elms along the street literally cast a damper over the ambitions of the pupils to capture the prize offered by a local horticultural society for the best school garden. In their zeal, the children

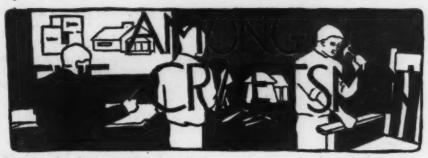
CHILDREN GARDENERS FOR THE SCHOOLYARD

fairly envied the arid, sun-baked yards of the other wards, for so many things flourish in sun and hardly a thing truly gorgeous will grow in shade. The principal was resourceful, energetic and philosophical. "If we cannot plant what we want to, let us want to plant what we can," she exhorted. With due ceremony, a lawn, soft and close and velvety, was induced to grow in the half-sunlight that filtered through the splendid spread of the elm branches. The boys brought wheelbarrow loads of native ferns from the woods and these flourished in the excessively shady corners. Heavy planting of shrubbery at the sides of the grounds gave masses of color in the spring months while the foliage was yet tender and unoffending and the gay tulips flared into bloom at the same time. A hedge of bright-berried shrubs was planted on each side of the main walk and across the front of the yard. The result was a spot of refreshing coolness, leaving little to worry about during the vacation months. The school was rewarded by a special prize for greatest improvement in school grounds.

Whatever the school garden problem, it can be solved, especially if a school is willing to begin in a modest way and have a landscape picture of one shrub and a few clumps of perennials with a scattering of annuals for immediate effect, and to keep up courage until the

established things come into their own.





CRAFTSMANHOMESPLANNED FOR GARDEN CITY LOTS

ARDEN cities in America are still few and far between; but judging from their success abroad and the earnestness with which their value is being discussed by our architects, laymen and the press, one may safely predict that we shall eventually adopt, under one aspect or another, this wise and beautiful plan of housing. In the meantime, working toward this end, the more vigorous-minded men and women of town and suburb are trying to knit their interests closer, to bring to the country the cooperative efficiency and social opportunities of the city, and to put within reach of the city worker some of the wholesomeness and joy of country life. Hence the constant de-mand for small homes about the edges of our congested centers, the building up of rural and suburban communities and the daily pilgrimage of the commuter.

In adjusting their lives and dwellings to these new conditions, it is to the architect, naturally, that our home-makers must look for practical help. And one of the most vital and engrossing problems before this profession today is that of designing, within the restricted limits of a small suburban lot, the kind of house that will meet the material and æsthetic needs of a family of moderate means and democratic ideals of

living.

It is upon similar tasks that much of our own effort is directed. Recently we were asked by one of our friends to design a bungalow to be erected on a lot in Forest Hills Gardens, Long Island, where the Sage Foundation Homes Co. is developing

what may be considered America's first important garden city. This bungalow, No. 143, we are illustrating here, and while it shares the general characteristics of a Craftsman house it includes several unusual features which are worth studying.

In the first place the site for which this house was designed was a sloping hillside, a fact which determined to a great extent the nature of the building and arrangement of the rooms. As the exterior view shows, the foundation and walls of the first story are of field stone, which is also used at the side of the entrance porch and for the base of the pillars. The walls of the second story are of brick, and this is used for the pillars which support the roof over the rear sleeping porch as well as for the tops and sills of the windows which are laid in soldier and header courses. It will also be noticed that the brick is worked in with the stone around the window frames and is used for the riser of the porch step and for the coping of the low porch parapets, the blended materials giving a very harmonious effect and adding to the unity of the construction. The same effect is carried out in the wall around the garden in which brick and field stone are used alternately with decorative result, and topped with a coping of stone. The brick posts at the entrance are surmounted with square flower-boxes that give a friendly note of welcome to the approach. The porch floor is of cement, which can be blocked off in squares and painted red, if desired, in which case a red brick walk could be used.

For the pillars of the porch, hand-hewn posts of wood are used with chamfered edges, and wooden beams are employed in the pergola roof above. Beams and posts

CRAFTSMAN HOMES FOR GARDEN CITY LOTS

may be stained or painted the same color as the window trim to carry out the general

V-jointed boards are used in the gables, and the louvers are made in triangular form to carry out the lines of the roof. The latter is covered with shingles and brick is used for the chimney, while around the sleeping porch at the rear a decorative wood balustrade is shown. The windows

throughout are casement.

As the entrance is somewhat sheltered by the pergola, no vestibule has been deemed necessary, the door opening directly into a hallway, which is slightly separated from the large dining room on the right by a partition. On the left of the door is a convenient coat closet, and beyond that two wide steps lead up to the stair landing, which is pleasantly lighted by a double window in the side wall. A group of three windows in the front and two at the side give ample light to the dining room, and in one corner, between the partition and the china closets, is the fireplace, which is so constructed as to furnish heat and ventilation for all the rooms. Behind the dining room is a small passageway which leads on one hand to the kitchen and on the other to the maid's bedroom. The kitchen is conveniently fitted with plenty of closets, sink and drainboard beneath the windows, and the kitchen range is so located that the flue may be carried across to the main chimney.

The kitchen door opens upon a service porch which is made by excavating the hill-side and walling it up a sufficient distance at the rear. About two feet above the top of this wall is the floor of the sleeping porch above, which rests on stone pillars and upon the solid wall of field stone surrounding the excavation for the cellar. The latter is lighted by a window on the right and communicates with the service porch.

Turning now to the plan of the second floor, it will be noticed that most of the partitions are directly above those on the floor below—always an economical feature of construction. On this second floor we find the spacious, well-lighted living room, a decorative feature of which is the inviting nook on the left, separated from the main room by post and panel construction. The rest of the floor plan is occupied by two good-sized bedrooms, each of which communicates with the bathroom, and a generous amount of closet space is provided. Glass doors from the bedrooms give

access to the sleeping porch which extends across the entire rear of the house.

From the foregoing description and plans it will be seen that the house is divided practically into two portions, the lower floor being devoted to the service part of the house and the upper floor being for family use. The convenience of this arrangement will be readily appreciated for it is one of mutual comfort. Downstairs the maid has practically a little apartment of her ownthe sleeping room, bath, kitchen and porch being sufficiently isolated from the rest of the rooms to give her a sense of privacy and at the same time being conveniently near the dining room and stairs. The second floor rooms, on the other hand, constitute an equally private suite, and the living room is large enough to fulfil all the demands of hospitality. At the same time, the household arrangements are simplified to such a degree that in the absence of a maid the mistress could readily assume the task of housekeeping.

As in practically all Craftsman houses, the arrangement of the staircase and partitions is such that the woodwork may be made a very interesting, decorative part of

the interior.

HE second house, No. 144, is somewhat different in construction and design, although in this instance also field stone is used for the foundation and around the edge of the porch, cement for the porch floor, and hand-hewn pillars and wooden beams for the pergola. The walls are covered with shingles, which are sprung out to form hoods over those windows which are not protected by the porch roofs or overhang of the main roof. Here also the windows are casement and V-jointed boards are used in the gables, with shingled roof and chimney of brick. The field stone of the foundation is repeated in the irregular wall around the lawn, as well as in the risers of the wide cement steps that lead up to the porch.

The entrance door, of typical Craftsman design, opens directly into the hall space between the living room and dining room, and in the opposite wall a coat closet has

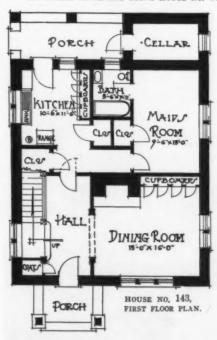
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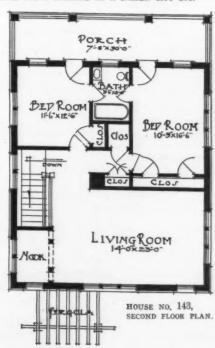
The long living room on the right occupies the entire side of the house, with three groups of windows in the side wall and additional windows in front and rear. At the back a glass door leads onto the porch,



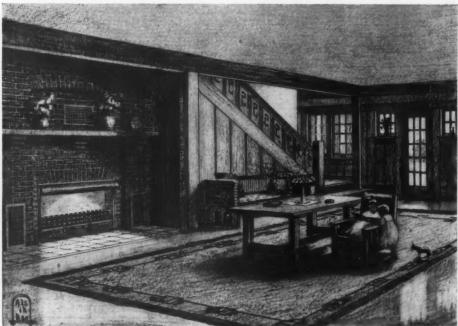
Gustov Stickley, Architect.

CRAFTSMAN BRICK AND STONE HOUSE NO. 143, PLANNED FOR A HILLSIDE ON A GARDEN CITY LOT.









Gustav Stickley, Architect.

CRAFTSMAN SHINGLED HOUSE NO. 144, PLANNED FOR NARROW LONG LOT. LIVING ROOM IN HOUSE NO. 144, SHOWING FIREPLACE AND STAIRWAY.

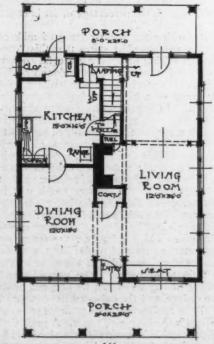
CRAFTSMAN HOMES FOR GARDEN CITY LOTS

which—as it communicates also with the kitchen-may be used for dining purposes whenever the weather is warm enough. In the middle of the inside living-room wall is the ample fireplace, which is slightly recessed to form a nook. There is a convenient fuel closet on one hand into which fuel can be put from the landing at the top of the cellar stairs. This fireplace, being provided with a Craftsman heater and being centrally located, furnishes thorough heat and ventilation for the entire house with a minimum of piping, and the same chimney will serve for the flue from the kitchen range, which is located directly behind the chimneypiece.

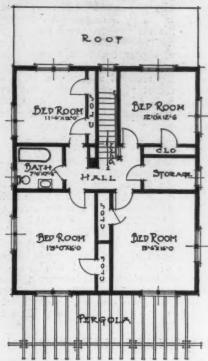
The staircase can be reached from both living room and kitchen by means of two steps leading up to the wide, well-lighted landing—an arrangement that is always desirable when space permits. The kitchen is conveniently equipped. On one side of the rear entry is the ice-box, while on the other side a closet is provided, which will be useful for storing brooms, pails, garden

implements, etc.

Upstairs the layout is very simple; goodsized bedrooms occupying the corners of



CRAFTSMAN HOUSE NO. 144: FIRST FLOOR PLAN.



CRAFTSMAN HOUSE NO. 144: SECOND FLOOR PLAN.

the floor plan and opening out of a small central hall. Each bedroom is provided with a closet, and there is also a large storage place on one side of the house, the bathroom filling the corresponding space on the opposite side.

If desired, of course, the roof above the back porch could be made flat instead of sloping, and converted into a sleeping balcony with a sheltering rail around the edge and possibly a roof above. In this case glass doors would take the place of the adjacent bedroom windows. In fact, many such changes could be made in the construction of the house to adapt it to the specific needs of the owner. If greater privacy were desired on the porch, for instance, a parapet of stone might be used around it, or latticework and vines might shield it from the gaze of passersby. The circular seat about the tree on the lawn as indicated in the sketch of the exterior suggests in what pleasant ways the garden may be made inviting.

The view of the interior of House No. 144 shows the fireplace nook in the living

PRACTICAL DAIRY PROBLEMS

room, and gives some idea of the pleasing effect attained by a simple but decorative use of the various structural features of the room. The chimneypiece with its open grate and copper hood, its long wooden shelf supported by the corbeled brick, and the slightly recessed arch above, the tiled hearth, the sturdy posts and beams add greatly to the friendliness of the room, and suggest how effectively the different colors and textures of the materials may aid the home-maker in carrying out a harmonious color scheme. A distinctive feature of the construction is the decorative panels of the staircase balustrade, which offer a tempting opportunity to the owner for introducing into the woodwork of his home some little individual touch, such as a family initial or symbolic device. It will be noticed from this interior view that the walls of the living room are wainscoted with paneled wood up to the beam that extends across the top of the doors and windows-an arrangement which adds always to the effect of unity. The small panes of the casement windows give a further decorative note to the walls.

PRACTICAL DAIRY PROBLEMS

MONG the helpful little pamphlets which are being issued by the New York State College of Agriculture at Cornell University for the aid of farmers, is one entitled "Practical Dairy Problems," compiled by H. E. Ross, E. S. Guthrie and W. W. Fisk. The object of the bulletin, as it states at the outset, is "not to teach arithmetic, but to apply its principles to dairy work. The successful dairyman must keep close watch of every operation in his business. This applies just as much to the small dairyman as to the operator of a large dairy plant; for, while the total loss in a small dairy plant may not be great, the percentage loss is just as great as, and in many cases greater than in a large one."

Among the topics which are discussed (with practical mathematical tables, examples and their answers) are the following: Converting pounds to quarts and quarts to pounds; computing the pounds of fat in dairy products; computing percentage of fat, pounds of product or pounds of fat, having any two of these quantities given; standardizing milk and cream; value of fat usually lost in whey; computing fat recov-

ered during separation; comparative value of different methods for disposing of milk and its products; computing the average percentage of fat in the milk of a herd; computing the percentage of fat in a vat of cream after starter is added; estimating cheese yield of milk, using fat content as a basis of calculation; computing overrun in butter; butter yield of cream; value of salted vs. unsalted butter; computing the amount of cream necessary to make a cream-gathering route profitable; creamery dividends; computing the rate in a cooperative creamery; calculating the rate on the fat basis in a cooperative cheese factory; calculating the rate on a fat-plus-2 basis in a cooperative cheese factory; calculating the rate on the fat-and-casein basis in a cooperative cheese factory; premiums computed on a pro rata basis.

"In converting quarts of milk to pounds or pounds to quarts," the lesson reads, "it is necessary to know that a quart of milk weighs 2.15 pounds. While it is true that the composition of milk is variable, the variation in weight is not great enough to affect the practicability of calling the weight of one quart of whole milk 2.15 pounds. The weight of a quart of cream is not constant because the percentage of fat in cream is very variable."

Regarding the standardizing of milk or cream, the pamphlet states that this "consists in raising or lowering the fat content to a fixed standard. This is done by adding to the material to be standardized, milk or cream of a higher or lower percentage of fat. In standardization there are two classes of problems involved: first, one in which a certain fixed amount of milk is to be made up or a certain amount of standardized milk is desired; and second, one in which a certain amount of milk or cream is to be used and enough of another product added to make the mixture test a certain percentage of fat. In the latter case the amount of the mixture is indefinite."

Space is lacking to quote the many examples given which show how the foregoing computations may be made; but the above outline gives some idea of the value of the bulletin to dairymen. The pamphlet and others of the series can be obtained from the college, and the only expense connected with the reading course is postage, one cent being charged for each paper. A great deal of practical information is thus placed with-

in reach of all who need it.



THE WAY A CALIFORNIA ARCHITECT HAS LINKED A HOUSE TO ITS GARDEN: BY HELEN LUKENS GAUT

ONDS of beauty and harmony should always link a house with the garden and the landscape that surround it. There should be a kinship between the man-made structure and the great out of doors that proclaims the love of the dwellers within its walls for the nature world outside, and the delight in it. Western architecture seems somehow to offer fuller expression of this close relationship than that of any other part of the United States. Architects seem to have a freer imagination, or perhaps the builders cooperate with them in more friendly intimacy. The people of the West refuse to be shackled with the tight formalism that seems more or less to constrict the lives of Eastern people. The lives of the Westerners are freer, their imaginations more open, and out of their disregard for "style" has grown a distinct style of their own. They demand freedom always-freedom to think, live and dress as they like, but more especially is this desire for individuality manifested in their domestic buildings.

The house we are showing in this article is a good example of this progressive architecture of the West. There has been no

AN UNUSUAL TYPE OF WESTERN HOUSE BUILT IN THE ARROYO SECO VALLEY, CALIFORNIA.

need for economy in planning this home, yet the aim has been only for simplicity, charm and solid comfort. This requires no small degree of art. To achieve a harmonious whole, inherently simple and straightforward, demands imagination and individuality, welded together with skill and

loving care.

The owner selected the site because of its extensive view, its quiet and its towering old oaks. The grounds, consisting of two acres, are on the bank of the Arroyo Seco, in Pasadena, California, just far enough from car lines and pavements to escape the discordances of city noises, and just close enough to nature to capture the rare morning chorals of the birds and the fragrance of sage, greasewood, artemisia, wild flowers and ferns that hide in the arroyo. The setting, with the green hills at the back, seemed to be especially suited for an old New England Colonial residence, and so this type was chosen. Instead of facing the street to the south, happily it faces the east, so that almost all the rooms get the splendid morning sun, wide sweeping views of the beautiful oak-strewn Arroyo Seco, and the distant purple masses of the Sierra Madre Mountains.

The house is painted white and the blinds green. The walks and driveway are also white, all contrasting delightfully with the



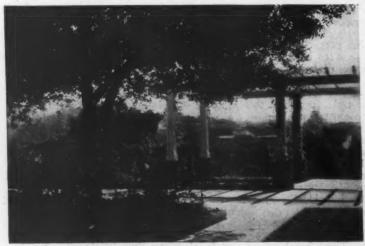
THE GARAGE IS PLACED IN A NEST OF FLOWERS.

green lawns and clustering oaks, the gay flower-beds and the blue of the southern sky. The veranda is one hundred feet long and eight feet wide, and a twenty-five foot pergola at either end makes an extension of fifty feet. The veranda is charmingly furnished with wicker lounging chairs, couches, tabourettes and table, while grass rugs cover the cement floor and soft, gay pillows are scattered about on chairs and couches.

The interior finish, furnishings, decoration and workmanship show careful thought in every line and material. The entrance hall is in a striking combination of old

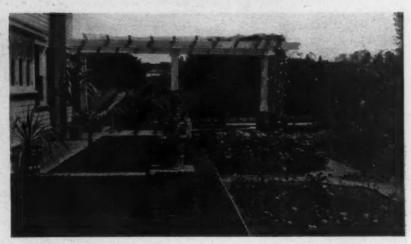
ivory and mahogany, particularly effective in the stair rail. The walls are papered with satin damask in shades of cream and tan, and the furniture is all of mahogany in Empire design, and is upholstered in tan silk velour. The living room is in white and gold and pink roses, with daintily upholstered Chippendale furniture. The mantel and hearth are of cream tile, the fire-box of white brick, and the andirons and rail are of polished brass, matching in color the gold frame of the mirror above the mantel shelf. The hangings are of blue and gold brocade.

In the dining room the color scheme of the Japanese motif is delicate and ef-fective. The ceiling is tinted silver-gray, show-ing a slight tinge of blue, and just inside the cornice is a frieze of oak leaves and acorns, symbolic of the trees outside the windows. The wall paper is in silver-gray and blue tones, and shows a forest design, soft and shadowy, which



PERGOLA AND TERRACE AT NORTH END OF THE HOUSE.

TERRACE, OLD-PASHIONED GARDEN AND EOSE-COVERED PERGOLA AT THE SOUTH END OF HOUSE



seems to melt in color and texture into two exquisite cut-velvet pictures which were brought from Japan. In fact, the room was planned to harmonize with these rare pictures. All the woodwork in this room is finished in ivory enamel and the electric fixtures are in gold and crystal. On the west side of the room are two double French windows of lattice glass which open onto a secluded veranda that dips into an old-fashioned garden and is screened by oak branches. The china cabinets in the dining room are of unusually good design, and the mahogany Chippendale furniture contrasts effectively with the ivory woodwork and soft gray walls.

In kitchen and pantry are exquisite daintiness, yet real convenience. Here everything is white and blue, even to the window hangings, and there is always a lovely bunch of flowers on table or shelf, which takes away the usual kitchen atmosphere of drudgery and gives the maid inspiration in fulfilling every task. In every house is felt the need for a small room for rest, seclusion, reading and study, and here these requirements are supplied in the "den," which is finished and furnished in browns and golds and has in it, in desk, table and chairs, a suggestion of the Queen Anne period.

The bed chambers are all charming, one,

however, in silvergray and lilac, with Louis IX furnishings, being most delicate and pleasing. One bedroom is equipped with a sleeping porch, which opens in the branches of an oak, and to sleep there is like nesting with the birds, bringing to mind Edwin Mark-ham's "My body's a bough in the wind, my heart a bird." In every bedroom are personal and lovely color schemes in the finish and furnishings and draperies, and every casement



LOOKING NORTH TOWARD THE SIERRA MADRE MOUNTAINS ACROSS THE ARROYO SECO.



frames a picture of landscape and garden,

The garden scheme is delightful, affording many secluded nooks under the oaks where one can be as much alone as if in the woods. As the home site is from three to six feet lower than the grade of the public road, terracing was necessary, and because of this the grounds are vastly more interesting and attractive than they could otherwise have been. Separating the grounds



from the road is a low slat fence, painted white, and over this pink Cherokee roses have been trained. Although this rose is a climber and several times larger than the wild rose, it is otherwise almost an exact duplicate, and seems especially adapted for rambling over the pretty white fence and hugging the quaint, old-fashioned gateway. Inside the gate is a brick platform with brick steps leading down into the garden.

On either side of this platform are two wood seats where guests can linger for rest and to enjoy the view.

Just below the rose-covered fence is an eight - foot - wide terrace planted with ornamental strawberries, a new variety that is becoming exceedingly popular for parkings and terraces. Throughout the year the leaves are green and glossy, spreading swiftly and forming a deep rich mat. In spring the blossoms spread a



THE HALL IS FURNISHED IN MAHOGANY AND IVORY-WHITE WOODWORK.

SUMMER AGRICULTURAL SCHOOL AT CORNELL



THE PATHWAY FROM PERGOLA TO GARDEN.

white-yellow polka-dotted cover over all. Joining the terrace is a narrow bed of tulips, iris and other bulb plants in many rare varieties. Then comes the graceful sweep and slope of velvet lawn, broken at intervals by curving, flower-bordered walks

and giant oaks.

Back of the house, where the oak-covered hills come close, are beds of old-fashioned flowers, stepping-stones through the clover and lounging chairs under widespreading tree branches. The little white garage is in a nest of flowers such as our great-grandmothers used to love, and down below is the rose garden, where a hundred or more of the choicest varieties bud and blossom the whole year through. At the lower portion of the grounds, at the edge of the arroyo, a wild garden is thriving, with matilija poppies, mountain ferns and flowers, and in the open, sunlit spaces the pink Cherokee rose is allowed its own sweet way, covering the earth with fragrant mats of delicate pink petals and green leaves.

In this fragrant land of summer beauty, many of the plant dwellers in the wild woods and fields can easily be coaxed to enter the dooryard, as it were, where they can mingle in friendly intimacy with their kinsmen of the garden-bed and hot-house.

SUMMER SCHOOL, STATE COLLEGE OF AGRICULTURE, ITHACA, N. Y.

THE need of systematizing agricultural instruction is being met in special schools and colleges, and particularly by the arrangement for summer study made by the State College of Agriculture, Ithaca, N. Y., which opened recently for a six weeks' session. Realizing that before agriculture can become a part of elementary school work teachers must be trained to handle the subject, the College of Agriculture opens its summer school to "all persons who can derive benefit from the course and who are prepared to pursue the work." Furthermore, men and women who want practical knowledge to apply at once in the work of their own farms, gardens and homes are invited to at-

There are forty-seven courses given in the Summer School and they include every phase of animal and plant culture, from the study of soils, garden lore and the principles and practice of animal feeding to tests in home economics and human nutrition. The work is scheduled so that one may either specialize or generalize, and is divided so that the courses may be followed for the first three weeks, the second three weeks, or the whole six weeks. The work of the forty-six resident instructors will be supplemented by special lectures and demonstrations by well-known educators.

Practice work is included in all of the courses, and the laboratories open to regular students throughout the college year will be available for the use of summer students. An important feature in the teaching is the practical work of handling farm animals, poultry, farm crops and farm machinery, testing milk, propagating plants and working in the school gardens. In addition to this definite instruction in subject matter, field trips will be utilized to show the possibilities of intellectual development in the study of out-of-door life, of wayside, forest and farm in connection with the everyday work of farm routine.

The regular University Summer Session is also open to students in the Summer School of Agriculture; the regular classroom and field work are supplemented by evening lectures on general topics; there are assemblies of faculty and students one evening a week for addresses and in-

UNCLE SAM'S SCHOOLS FOR FARMERS

formal intercourse, and musical recitals will be given twice a week in Sage Chapel.

.Tuition is free to residents of New York State; others will be charged a fee of twenty-five dollars.

UNCLE SAM'S SCHOOLS FOR FARMERS

PLAN is now under consideration by which the Government will send out experts into every agricultural county of the United States to investigate soil conditions and possibilities, conduct experiments, give lectures on farm topics, etc. This plan should interest every one, for whatever benefits the farmer, benefits every other citizen either directly or indirectly. A few years ago such a system of "rural free delivery" of education would have been looked upon with suspicion, but people are realizing that the academic instruction in agricultural subjects is not enough-instruction must also be carried to the land itself. The great difficulty in such a project is to find capable men for positions of such vital importance, for it will require a working force of at least three thousand men.

These men must be practical farmers, men who can handle the plowshare rather than repeat by rote rules as to rotation of crops or the chemical properties of the soil. They must also be scientists, for even the most old-fashioned farmer is beginning to have faith in the scientist, and to look to him for help in fighting insect pests and for making ten ears of corn grow where one grew before. He realizes that in the hands of a scientist all soils are fertile and every tree bears fruit. The scientist has driven back the sea and claimed the land for his own, has dried up lakes and turned them into farms, and has made the desert green with waving grain. "Science," says Hall, "is the most precious achievement of the race thus far. It has made nature speak to man with the voice of God, has given man prevision so that he knows what to expect in the world, has eliminated shock, and, above all, has made the world a universe coherent and consistent throughout.'

Secretary Wilson announces that seventy-one instruction trains were sent out last year that covered areas aggregating over 40,000 miles, reaching millions of country people. Counting the local farmers' institute as an extension agency, then

the total of those reached by agricultural instructions amounts to from 15,000,000 to 16,000,000. These numbers include people from small towns and villages, and cover instruction in both agriculture and home-making

The Massachusetts Agricultural College has announced a new department in addition to its regular courses, consisting of ex-tension schools which will be built in districts where people can reach them without having to leave their homes for more than a few hours a day. They will be in session six hours a day during five days of a week, and will include practical instruction in dairying, fruit growing, poultry raising, soil technology, grafting, pruning, spraying, harvesting, marketing, etc. courses to be attended by women as well as by men. At present only one of these schools can be held in a county, but if more than one county makes application the school will be placed where it can be reached by the greatest number of people. The expenses are to be divided—the college furnishing the instructor and paying for his transportation, and the local community supplying the room rent, lighting, heating and entertainment of instructor.

The Minnesota Legislature has appropriated \$1,300,000 for the teaching of agriculture, and a bill has just become a law providing for the consolidation of the rural school. If any four or more districts consolidate they can get State aid to the amount of \$1,500 a year on the sole requirement that agriculture is taught. In other States similar bills are being urged appropriating special State aid for such schools, so that farmers and their children can be personally taught how to get the best results from their land, how to avoid waste and the depletion of the soil.

The Department of Agriculture, in coöperation with the Department of the Interior and the various State and county authorities, has prepared a plan where consolidated or centralized graded schools
have been established, of donating or setting aside land adjacent to the schools for
experimental planting. A course of agriculture is to be taught and actual demonstrations given of irrigation and cultivation
with prizes for the best results. The Reclamation Service will furnish free of
charge the water when needed and the
State Experiment Station will supply seeds
and instructors.

TRANSFORMING A BARN INTO A BUNGALOW



THE BARNACLE: TRANSFORM-ING A BARN INTO A BUNGA-LOW: BY EUNICE T. GRAY

Y seaside cottage, the "Barnacle," is one of the most successful transformations that I have ever known. In the first place, my sister and I chose, as the site of our cottage, Carmel-by-the-Sea, California, a coast village of unusual beauty and charm. The lots were situated on a gentle seaward slope covered with the sweet smelling Southern wood, rich-hued manzanita bushes, scrub-oak and cascara; two giant Monterey pines with strangely twisted low lying limbs, stood on the seaward side of our lots and a group of smaller pines at the east.

The house completed, faces the east, and the dining-room and living-room windows look out upon beautiful Carmel Bay; the view from the southern windows is the full sweep of the chaparral-covered point between the bay and a small inlet into which the Carmel River flows. This river, in summer, is a placid low-running stream between banks of sycamore and willow; in the winter, fed by the rains and snows it is a roaring flood of mountain wash, rushing through the rich Carmel Valley to the sea. Beyond the river are the foothills, green and wooded, and sloping down to the coast in the long rocky point, called Lobas.

"THE BARNACLE": A LITTLE CALIFORNIA HOUSE MADE FROM A BARN.

where the rarely beautiful, roseate, abalone shells with their pearly "blisters" are found.

From the upper windows looking eastward we catch a glimpse of the cross of the historic church of San Carlos Mission, founded nearly a century and a half ago.

But in the beginning there was no living room or dining room, for the house like its name began as a barn. It was built four-square, a carriage house, horsestalls, barndoors and hayloft, painted red and set on the barest corner of the four lots. It cost the sum of eight hundred dollars.

The original barn was twenty-four feet square, built of California redwood, with a shingled gambrel roof, and outside finish of board and battens which we had painted dull red. The lower floor was divided through the center by a partition, which



SHOWING THE RUSTIC GATEWAY AND FENCE.

TRANSFORMING A BARN INTO A BUNGALOW



LIVING ROOM IN "THE BARNACLE."

was made by covering the upright beams with heavy gray building paper, on the south side of which an enclosed staircase led to the loft above. Two windows, three feet high and two wide, faced west to the sea, and a door opened onto an uncovered west veranda. The north and south windows were long and narrow, three by one and one-half feet, placed in the exact center of opposite walls.

The upper room was lighted by two east windows and a double dormer window to the south, glass doors opened onto a semienclosed west balcony from which we could witness the marvelous sunsets over the bay.

Before the barn was finished we had an opportunity to rent it as a residence to a carpenter who was at work in the neighborhood, so we decided to furnish it simply and comfortably for his family for the winter. We had couches, rugs, linoleum and curtains from our town house which were past their first freshness but still in good condition, these we had shipped down by freight; dishes and kitchen furnishings we bought at the village store; bedding and rag rugs we industriously made, to keep the house as homespun and old-timey as possible. A new stove in the "horse division," a cupboard built of boxes and a work table constituted the kitchen; the carpenter built shelves and a table in the west end, and called it the dining room. The carriage called it the dining room. The carriage house was converted into a cozy, comfortable living room, with rag rugs, a couch and cushions, a large circular table, two rocking chairs and two low hickory chairs with rawhide seats.

We hung the sides of the upper room with flowered chintz, soft blue covered with roses, the space between this temporary wall and the sloping roof made two long airy closets. We furnished it with cots,



SOUTH VIEW OF "THE BARNACLE" SHOWING BAY WINDOW AND SECOND PLOOR DORMER.

TRANSFORMING A BARN INTO A BUNGALOW

hickory chairs, dressing-tables made of boxes, patchwork quilts and dull blue rugs. Altogether it was a most attractive room and the wonderful views from the windows were never forgotten by the numerous guests who later occupied the quaint airy chamber.

For two years the new barn, which never housed a hoof or a wheel, was used as a house. We entertained jolly house parties of four to ten in number and the year of the earthquake and fire in San Francisco we found it a safe and quiet refuge from the distress and disorder of the city. The third year we abandoned all idea of building the larger house under the pines and decided to convert the barn into a bungalow. A three-windowed bay was added to the south side, and the second floor balcony, which was found impracticable in stormy weather, was enclosed and made into a tiny bedroom.

The little village had not yet a sewerage system, so modern plumbing was out of the question for that year, at least, but a bathtub was installed in a curtained recess of the living room and a sink and drip-board in the kitchen. The walls of the first floor were wainscoted to within three feet of the ceiling with white pine, waxed and shelacked. The upper portion was covered with linen canvas, and a plate rail was built all around the room. The effect was very artistic and the house was unusually light and attractive. These improvements cost

That summer we rented the "Barnacle" to vacationers through the entire season. They paid \$1 a day, and all expressed themselves satisfied with the simple arrangements and comforts of the cottage.

The following fall I bought out my sister's interest in the Carmel cottage and made \$300 worth of improvements. With this expenditure all traces of the original barn disappeared; the carriage-house entrance was replaced by pine paneling and three large windows. The "horse door," built in an upper and lower section, was taken out and a very proper door with a pane of glass and a lock and key was hung in its place.

The old staircase was pulled out and built into the northeast corner, which was now, by the construction of a partition, the front hall; the west end formed a kitchen twelve by eighteen feet. The sink was placed under the long window, and a door was cut on the north side leading onto a

covered platform which was used as a woodshed. The east end of the living room is now used as a dining room, and the crowning glory of this long, light room with its beautiful outlook, is a great red brick fireplace with a chimneyshelf and a crane, and a wide hearth and niches on either side for the Chinese bowls and candlesticks. The chimney is not enclosed but rises solidly to the ceiling directly in the center of the house. It has been, indeed, the heart of the house, and when a group of merry friends are gathered about the roaring fire,

"Oft died the words upon our lips, As suddenly, from out the fire Built of the wreck of stranded ships,

The flames would leap and then expire."
And in those little silent times we experienced true comradeship.

The second floor of the house has received due attention, a bathroom with modern plumbing is the prime improvement, a second dormer was thrown out on the north side and the room finished with pine and divided into three bedrooms.

The rose vines climb over the pergola, and a hardy group of eucalyptus trees rustle their gray-green leaves in the ocean breeze, golden poppies and wild lilac have wandered in from the roadside, and mingle their sweet wild beauty and fragrance with pink geranium and sweet alyssum.

While our architectural methods, as the foregoing account reveals, were certainly unorthodox and unique, both the exterior and interior of our bungalow proved practical and homelike. And perhaps the results illustrated here may inspire some other home-makers to work transformations of a similar nature.

A NYONE who needs to make a little extra money each spring can easily do so by devoting a little space in the yard to calladiums, banana plants, or even cannas of peculiar shade. A small boy in our neighborhood finds ready sale for all the sprouts he has, although in this warm climate (Alabama) such plants stay in the open ground each winter and most of the lawns have them. He sells the bananas at a quarter each, the cannas at a quarter a dozen, and chrysanthemum plants at the same rate.

A start in these plants is all one needs, for they multiply rapidly if well fertilized and watered through the hot season.

COLOR DECORATION FOR WOOD: ILLUSTRATED FROM PANELS BY W. F. CURTIS

N an article published in The CraftsMAN for December, 1911, called "A
New Idea in Interior Decoration," we
took up the question of ornamenting
wood, and we used illustrations which were
loaned us by Mr. Curtis. In these pictures
on wood Mr. Curtis kept to one color
scheme, that of gold, ivory and the brown
tones of the burning. In the series of panels which we are using in this article, Mr.
Curtis has further developed his ideal of
wood decoration and has included the natural colors of fruit and branches against a
gold background. These panels would furnish a color note of rare beauty in a room.

They could be used where a room is ceiled in, in alternating panels, or else they can be used as repeated motifs in a frieze, either above a ceiled-in wood wall surface or plaster or even with Compo boards in appropriate colors. Or a single panel could cover the chimneypiece and furnish a note of color for the entire room, to be repeated perhaps in portières or cushions or chair coverings.

The wood which Mr. Curtis has selected for burning and decorating is tulip wood, because of its softness and smooth surface. First of all, he sketches his design and this is done with the most naturalistic technique, so that every leaf and branch and bit of fruit has the actual quality and beauty that one would find in the autumn Then the orchard. design is sketched on the wood. Later it is burned and then overlaid with metallic water color, which Mr. Curtis finds most luminous and durable. The background in Mr. Curtis' panels is then washed over with gold, and gold is also introduced in the water colors in order that the fruit and the background may be intimately related.

An interesting idea which has come to us through our delight in these panels and through our never-failing enjoyment of the beauty of native woods and in the possibility of ornamenting them in the most natural way, is the decorative use of colored designs inlaid in wood friezes or panels. As, for instance, let us take a room ceiled in chestnut with a deep frieze of the same wood, treated in the simplest fashion, merely stained and polished to bring out what color is most native to the wood. Then



APPLE DECORATION ON WOOD PANEL.

suppose that we have a repeated design in this frieze of apple boughs, rich with leaves and hanging fruit, the design to be sketched on the wood and then burned in according to Mr. Curtis' method; then the water colors mixed with gold and overlaid on the burned design, the background left the natural color of the wood, with no gold except that which has been included in the water color to begin with. The effect would be very simple, very natural and yet rich with glowing color. In all instances, of course, it should furnish the keynote for the color scheme of the room.

If apples were used in the rich dark color of the Baldwins or the Winesaps, it would be essential to repeat all through the hangings, cushion covers, table scarfs, a note of the flaming red of the

Baldwin or the deep red of the Winesap. If, on the other hand, a branch of peaches is used, or the pale yellow of apricots or of Bartlett pears, then through the room we would find the lighter notes, supplemented by the green of the leaves and the browns of the stems. Of course, the wood could be varied according to the location in which the house is built or the taste of the owner. Chestnut is suggested because just now, with the terrible chestnut blight that has gone over the country, it is a very easy wood to procure and also can be treated to bring out a beautiful grayish brown tone that forms a wonderful background for decoration and for furniture. But cypress would be interesting, or ash, elm, gumwood, birch, beech or maple. The cypress or the gumwood finish for a room is extremely interesting with the oak furniture.

Of course, very simple designs should be



PEACH DECORATION FOR WOOD PANEL.

used for this sort of decoration, as the purpose is to attain color rather than elaboration. Also, in all decorative mural effects simplicity is essential to avoid an effect of confusion and restlessness. Designs simplified down to the effect of stencil work would be perhaps the most charming of all. These could either be repeated over the frieze or there could be a varied working design so that every section of it had the effect of freehand drawing, with some slightly new interest.

But the important point is that the decoration should be the first color note in the room and that nothing inharmonious should be brought into the color feeling to destroy the sense of harmony which is so essential where any really vivid tone is used. For this reason the idea of decorating wood panels or friezes would be perhaps more



QUINCE DECORATION FOR WOOD PANEL.

satisfactory in the building of a new home than in the redecoration of an old one, because in entirely new interior fittings, schemes of colors can be carried out to a logical finish, without a sense of loss or a sense of inharmony which so often results where old furnishings and fittings are brought into newly decorated interiors. Of course, it might be possible to redecorate a room to suit the furniture. This would have to be very carefully thought out, and usually the scheme would have to be a little more delicate than is possible where the decoration forms the keynote.

Such tones as Mr. Curtis uses in his panels where he is working out symbolic ideas, with figures and faces, would perhaps be most interesting in a room where the color note must be furnished by the drapery,

rugs, etc. In these panels the design is always developed in a monochrome,brown, ivory and gold. This furnishes a very beautiful color harmony with a plastered wall or the Compo boards tinted in tone. But where the entire decorations are new, where the furniture is new, the scheme already suggested would be most interesting and novel. Also a color decoration could be added to the furniture, whether of oak or chestnut or cypress. This is espe-cially interesting in bedroom furniture, where a lighter note of color is so often desired, and where a more complete suggestion of cheerfulness is essential.

The pictures which we use as illustrations are reproduced from panels in color by Mr. Curtis, and in every instance the back-ground is of gold. This use of gold is

perhaps most interesting where a single panel is used over the fireplace, or in one wide space on a wall. Of course, it might be effective in a very somber room to lay in a gold background for an entire frieze. This would necessitate quieter draperies and general furnishings than where the background is of wood and the color related to the design.

The whole idea seems to be very simple and can be handled very easily by anyone familiar with pyrographic tools, and we feel it a significant suggestion for the builders of new homes or the decorators of new interiors. As for the beauty of the idea, we cannot speak too strongly. It seems one of the most interesting suggestions for interior decoration that has ever come to us, although we have not ourselves as yet had an opportunity of testing it in our own

houses. Suggestions for color decoration in a room are well worth studying by anyone who intends some day to furnish a home. Before begin-ning the actual work of fitting up a room, or even deciding upon the scheme of colors to be used in it, it is well to have stored up in one's mind at least a general idea of what is good and what is unwise in furnishing. Most people have but a vague idea of what actually goes into the fitting up of a room, and are apt to start out with either a hazy memory of some scheme of furnishing that had once been admired, or a vague mental picture of a room that had never been reduced to real woodwork, wall coverings and draperies.

We are particularly interested in recording Mr. Curtis' work as an available suggestion for home

decoration. His panels offer opportunity for the introduction of gorgeous color into a room, but a panel of this sort should be regarded as a jewel, not the setting. One placed in a room where the rest of the colors seem to culminate in splendor would be most effective.

The question of color decoration has very often been taken up in The Craftsman, but we feel that it cannot be too well understood. There has been so much haphazard decorating of homes in America,—it has seemed so easy just to select whatever kind of paper looked best in the sample book and a pair of portières that looked well in the shops,—that the effort to relate rugs and wall coverings and draperies seems stupendous. It is really worth striving for for even a little effort is repaid in ample fashion, and all the care that can be lavished on a home shows unfailingly in the result.



PEAR DECORATION FOR WOOD PANEL

Some of the most beautiful and restful homes we have seen have been planned and furnished largely by the owners themselves. No one else is so close to the scheme as a whole and no one else can visualize so well the owners' ideal of a home. Someone else's plans and ideas can never fit your own exactly, and the way to express your personality and taste is to think the thing out yourself. The time and patience needed to insure the right relation of each part of the furnishing to the whole seem endless when one is in the midst of the work, but the reward is sure to come when the disorder has been straightened out and the color scheme is complete, each tone and shade in exactly the right relation to every other part of the furnishing. If your own effort, time and skill have gone into planning your home, then will the comfort of it be your own.

ADVICE FROM A SUCCESSFUL WOMAN FARMER

SOME ADVICE FROM A SUC-CESSFUL WOMAN FARMER

OMEN and girls who are seriously thinking of taking up farming as their lifework will be interested in some practical suggestions made recently by a woman who has won success along this line—namely, Mrs. Charlotte Barrell Ware. As a pure milk expert and head of a famous plant, the Warelands dairy, she surely speaks with authority. Mrs. Ware advises those who wish to take up farming to make sure of their ability to cope with the difficulties it entails before buying land. And to this end she says the best way is to hire out to a farmer and work for board and keep through a summer.

"If you know," she says, "what branch of farming you want to go into, see to it that your particular farm is strong in that line. Then move heaven and earth to get taken on. Let them put you in anywhere and everywhere at real work and consider yourself lucky to get the chance. An utter novice, always asking questions and getting in everybody's way, is not of immense service on a farm. The chances are that the farmer who pays you for your labor in food and lodgings will be getting the slim end of the

bargain.

"How shall you find the farm? By writing to the secretary of Agriculture at Washington, and to the agricultural college of your State, and to your own State secretary of agriculture. These people can tell you where the newest, best methods are being tried out and where you will learn nothing which will have to be unlearned later on. It sometimes happens that an eager capable girl cannot persuade the owner of a big modern farm to bother with her, even at the modest wage of board and keep. If such should be your case, take courage from the story of a Simmons College girl. She begged acceptance as a working student in horticulture on a certain famous farm. They wouldn't have her about. She retired and considered. She had a fair facility as a bookkeeper, stenographer and typist. So she sent in a second application, this time for the post of secretary to the farm.

"The great farm of our day keeps its accounts as elaborately as any commercial house. As secretary she was taken on; and from her post in the office she made

excellent use of her eyes and ears, so that she soon understood the business end of the farm. Her free time she spent in the fields, asking unobtrusive questions, and as she had a working knowledge of botany she picked up no small amount of horticultural lore. Moreover, she was liberal with her offers of help. Whenever emergencies made an extra hand useful, she was only too ready to serve. So that by the time Nature shut up shop for the winter she had mastered enough of the details of the field work to start out in horticulture for herself."

Mary Bronson Hartt, who writes in *The Housekeeper* of Mrs. Ware's experience and advice, reminds the would-be woman farmer that she must have practical knowledge of every phase of the work and be ready for all emergencies—such as taking the place of the hired man if he leaves or becomes ill. Points like this should be considered and weighed before a woman decides on this career, for she will need, in addition to her knowledge and love of the work, plenty of pluck and capacity for en-

durance.

There is another important aspect that the prospective woman farmer will do well to take into consideration, and that is the desirability of specializing in her work. This practical suggestion is made by the Springfield Weekly Republican, which quotes the foregoing extracts and adds a few words regarding the various products that will yield good results if made the spe-cialty of the farm. "In some localities," it says, "there is a constant market for eggs and broilers, and there is money in them, if the farmer understands managing the market and raising the fowls. Fine apples always command a good price, and a well stocked, well cared for orchard is a constant source of revenue, if one has apples that suit the market. Women who have good business sense can make and hold a market for jellies and canned fruit. Capability and business sense are the main requirements. Given them, almost anyone can make a good living."

As the same paper wisely remarks, farming, for the woman, is "pretty risky without either experience or genius," and Mrs. Ware's plan of trying out the work beforehand seems a most effective way for a girl to test her own capacity. The young enthusiast would soon discover if she was equal to the strenuous life of a farm.

A GARDEN GATE IN CRAFTSMAN STYLE



A PERGOLA GATE WITH ROSES.

A GARDEN GATE IN CRAFTS-MAN STYLE

N building homes nowadays we are not wholly content when the actual structure has been completed and the interior furnished for comfortable living. The demand for outdoor fittings is becoming more insistent as we learn to live more in the life-giving sunshine and in the com-forting shade. We are learning to appreciate gardens that contribute fresh vegetables and succulent fruits to our tables, and we crave flowers that bring color and fragrance into the house. We want opportunity to work in our gardens or play in them, just as much as we want to be able to rest there and watch the plants grow. And so we are building pergolas with seats for resting, covered walks for loitering, and garden gates and trellised walls to form a bond between the house and out of doors.

From time to time in The Craftsman we have published ideas for attaining outdoor beauty for American homes, and when someone writes to tell us that one of these suggestions has been the basis or inspiration for some structural feature that has brought comfort or beauty, or both, into the daily life of an American family, it gives us more pleasure than we can readily express.

In The Craftsman for June, 1908, and again in "Craftsman Homes," we reproduced photographs of California gateways that seemed very charming to us. One of these pictures interested Mr. R. S. Hamilton, of Roswell, New Mexico, so much that

he built one very like it on the grounds adjoining his home. The picture we published showed a gate of rather more massive construction than Mr. Hamilton's adaptation; it was severely plain in design and suggested Japanese inspiration. The gate itself was hung from two heavy square posts, which were topped by an open pergola roof.

It may be that Mr. Hamilton's gate seems lighter because of the two panels of trelliswork that have been erected at right angles to the gate itself. The fence that encloses the garden to which the gate affords access is built like the gate itself, of flat wide pickets, with a wide rail at the bottom and a narrower one at the top. The placing of the trellises forms an entranceway to the gate and also affords space for a long seat that invites to outdoor rest. Close beside one of the trellises and placed so that it is in full view of anyone on the seat is another trellis, covered with Brunner roses that blossom luxuriantly in the brilliant sunshine of New Mexico.

There are many lovely ways of using trellises in gardens, or on the house itself, and each home and its placing must necessarily suggest a different problem of achieving beauty. Mr. Hamilton's use of the trellises is rather unusual. Covered with roses or vines they would provide grateful shelter from the scorching sun of the Southwest, and even when bare they add a lighter touch to the heavier construction of the gate and fence and make them less severe.

SMALL FARMING IN DENMARK

THE ENCOURAGEMENT OF SMALL FARMING BY THE DANISH GOVERNMENT

R. MAURICE FRANCIS EGAN, the American Minister to Denmark, recently in Washington on leave, has brought home some interesting accounts of Danish enterprise, which show how those energetic and progressive people have battled with adverse soil conditions and overcome natural obstacles until their land has attained an agricultural prosperity second only to England among the countries of the old world. A thorough study has been made of the "farmers' welfare" problem abroad by Dr. Egan and other American diplomatic officers in Europe, under instructions from the State Department. They have investigated both the methods used by the governments in putting farming on a practical and prosperous basis, and the methods of the farmers themselves through cooperative societies. They have also noted the general benefits resulting to each nation from such agricultural advancement.

Dr. Egan recently made a lecture tour through the South, for the purpose of spreading the information acquired abroad among farmers in this country who might profit by a knowledge of the way in which

Denmark has achieved success.

"I was sent," he explains, "by the Department of State to expose to dairymen and farmers especially interested in dairying, the methods by which the Danes have become the most prosperous people agriculturally in Europe. When I say most prosperous, I mean by comparison.

"The wealth per capita of Denmark is comparatively next to that of England. This wealth, however, is equalized. There are no very rich people there. Every man is fairly well off, but the poorer he is the more carefully does he conserve his resources. Material well-being is as common

in Denmark as education.

"For instance, the only means of living which the Danes have is agriculture. Denmark, like Julius Cæsar's Gaul of ancient days, is divided into three parts—butter, bacon and eggs. Now, the Government, being dependent upon the farmers, does everything in its power to increase the number of small farmers, and this is done by making money as cheap as possible

for them. The State controls a great series of banks, managed somewhat after the

manner of the crédit foncier.

"An agricultural laborer in Denmark who has worked on a farm for five years, who is poor, and who has a character so good that two reputable members of the community will certify to it, may obtain from one of these banks a loan of about \$1,582 in our money. He obtains this solely on his character and ability and not by any material security he can offer. With this money he may purchase a farm of from 3½ to 12 acres.

"This farm means live and dead stock on the land and the necessary implements for working it. The amount loaned by the bank covers probably nine-tenths of the value of the farm, not of the land, because land in Denmark is never sold merely as land. The farm is judged by the value of its production for, let us say, at least seven years in hard corn, which represents its ability to sustain dairy cattle and hogs.

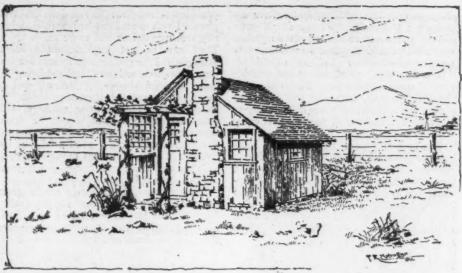
"The tendency in Denmark was and is to the constant increase of the small farmers, but the small farmer was practically nothing as an individual. To control the British market for fresh butter and the colonial market for canned butter, it was necessary that they have capital; it was necessary that their product be the same in quantity all the year around and always the same in quality. To standardize any product, one must have an enormous quantity of that product and the power of controlling its quality. The Danish farmers, in order to do this, began to form cooperative societies.

"Today the Danish farmer buys nothing individually. He uses no seeds until they have been tested by experts furnished by the coöperative society. He buys his fertilizers, soya beans from Manchuria, cotton and meal from the United States, through

the cooperative society.

"He never kills his own hogs, though there are 500 hogs to every 1,000 persons in Denmark, but sends them to the cooperative bacon factories, which were founded some time in the eighties, when Germany refused the Danish hog because of an outbreak of swine fever. The Danes instantly founded, with the assistance of the Government, large cooperative bacon factories. In order to make dairying possible, the farmers had to regenerate the land exhausted by the lack of scientific treatment."

WYOMING HOMESTEADER'S CABIN



AN EIGHTY-DOLLAR CABIN.

A WYOMING HOMESTEAD-ER'S CABIN: BY PAUL R. MAHAFFEY

N the prairies of southeastern Wyoming one finds architecture reduced to its simplest terms. Most of the homesteaders' dwellings can hardly claim the title of "houses"; they are merely shacks. And it was one of these shacks that I had the good fortune to secure when I left my home in Pennsylvania and came in search of health to take up a government homestead claim near Chugwater, Wyoming.

The cabin had been occupied by a homesteader who had already "proved up" on his claim and had returned to the East. The building was 10 feet by 12 feet, with a shed roof, 5½ feet high on one side and 7½ feet high on the other. The walls were built of 12-inch pine boards, placed vertically, the joints being covered with batten strips. The roof was of shingles. There was a door and one double-hung single-light window, which reached almost from the floor to the ceiling.

The inside of the shack was lathed and plastered, the plaster being off in a few places, and I knew that to move it from the original location to my claim—a distance of three-fourths of a mile—would shake off the rest of the plaster. Besides, the flat roof

was not satisfactory, for when inside the shack one always felt as though the roof were going to come in contact with one's head. So I decided to raze the cabin and rebuild, using the same material and what little additional material might be required.

For the foundation of my new home I chose four cedar posts taken from our firewood-which we haul eighteen miles from Goshen Hole. I filled in the spaces between these posts with field stone. The boards for the sides were put on as before, vertically, and the joints covered with batten strips. The windows were made of the two sashes of the double-hung window, in which I inserted hand-made muntins and small panes-an expedient which I adopted partly because the glass in the old windows was broken and the small lights were cheaper than large ones, but chiefly because I knew that this arrangement would add a touch of decorative detail to the house and give a cozy effect becoming to a dwelling of that size and type.

The long roof on the right hand is the roof of the old building raised to one-third pitch, thus giving ample headroom inside and still keeping a low sloping effect. For the short roof on the opposite side new material was of course required. For the interior, instead of using lath and plaster as before, I laid a durable brick-red building paper between the boards and the stud-

TO INCREASE THE FARM INCOME

ding, leaving the studding and rafters exposed on the inside. This made it suffi-ciently warm and at the same time gave a rustic effect which would harmonize with the general character of the little shack.

The chimney is to be of field stone, which abounds on the lower part of my claim, and the little pergola, with one side closed as shown in the sketch, is to be built chiefly as a windbreak and partly to give a friendly

effect to the entrance.

The cost of a cabin of this sort is naturally very low, and in my case it was merely nominal, for I secured the shack from a personal friend who did not charge me anything for it, and I spent only about \$3 on extra materials. The original cost of materials was about \$42, and I suppose the value of the labor would be approximately \$35, making a total cost of \$80.

BREEDING TO HORSE CREASE THE FARM INCOME

NDER this title The New York State College of Agriculture at Cornell University has issued a bulletin in its farm reading-course, and the subject seems to have been handled in such a practical way that we are mentioning it here for the benefit of those of our farm friends who may be interested. In addition to a number of illustrations and a tabulation of the different breeds (according to type, height, weight, uses, origin, registration, etc.) the pamphlet contains a discussion of the number of horses purchased in New York State, the places where they are reared, the cost and profit of raising a horse, the conditions favorable to horse breeding, the plan of cooperative breeding, procuring of stallions, stallion laws, uniformity of type and soundness.

Referring to the breed and type, the fol-lowing advice is given: "Choose the breed that best suits the conditions, the markets and the tastes of the breeders. There is no best breed or type for all conditions. The lighter types naturally belong on land devoted to grass, to dairy industry, to fruit growing and to market gardening, where but little plowing and other heavy work is required and the necessity of reaching the market, the station or the creamery requires

quick-moving horses.

"On grain farms, where there is much plowing and other heavy work to be done, heavy horses are needed. On general-purpose farms the draft horse finds his true place. Draft horses can be reared with less risk than the lighter and more active types. They can be put to light work much younger and do not require so much training. Coachers, saddlers, and roadsters require a large amount of training before they can be marketed, if good values are to be obtained. This training requires skill, time and money, which should be taken into account. A well-bred and well-trained coach team will bring a good price, but the amount of skill, time and money required to breed and train such horses is too great for the general farmer.

"Furthermore, draft horses are in great demand in New York State for city traffic. They are the last to be affected by a business depression and the first to recover; they are the least affected by automobiles, motor cars and the like; they are not affected by fads, fancies or fashions, and always command a remunerative price. From this it would seem to be of advantage to the general farmer to produce horses weighing upward of 1,200 pounds, as the heavier they are, the greater the profit in their production."

One need hardly add that the bulletin in question will prove of value to all farmers interested in horse breeding who care to send to the college for it. And the fact that the papers in this course cost only a cent's postage apiece brings their helpful-

ness within reach of all.

A useful feature of these lessons is the "discussion paper," containing questions and spaces for answers. The questions which supplement the horse-breeding lesson are worth quoting here, for they give some idea of the practical way in which the subject is treated. "I. To what breed or class of stallions do you have access in your vicinity? 2. Which breed seems to be preferred by the farmers? Why? 3. Do the farmers in your vicinity raise the horses used on their farms, or do they buy occasionally? 4. How much money do you estimate is expended in your township for horses raised elsewhere? 5. Why cannot the farmers get together and raise the horses used in the State, and thus save the money that goes to the Western farmer in exchange for his horses? 6. Do you believe the 'farmers' cooperative plan' (not the company plan) herein suggested could be made to work in your vicinity? If not, why?"

SOME AMERICAN GARDEN POTTERY

SOME AMERICAN GARDEN POTTERY INSPIRED BY CLAS-SIC DESIGNS

(The illustrations used in this article were furnished by the Atlantic Terra Cotta Company.)

OOKING backward" still seems to be the motto of a good deal of our twentieth century activity, not only in architecture but likewise in the numerous crafts which are so closely allied to it. We find, for instance, that modern pottery and garden furniture echo in terra cotta, stone and concrete, the designs and forms of ancient Greece and Rome, and introduce among the shrubbery and upon the lawns of American gardens the classic pillars and pedestals, sun-dials, urns, vases and fountains that adorned those legend-haunted Italian gardens of long ago.

While some of us deplore this retrospective tendency of art, and would prefer, to the best imitation, a virile if crude expression of modern thought by our architects and craftsmen, we must admit that until such expression is forthcoming it is no wonder that American designers turn instinctively to a trans-Atlantic past in their search for beauty. As one firm of potters asserts, referring to its own work, "it is considered better to reproduce original antique Grecian and Italian designs than to follow the frightful American designs of



TERRA COTTA PALM JAR OF GRACEFUL PROPORTION.

twenty years ago (still reproduced in cast iron) or the greatly overdone Art Nouveau school. Many of the original vases, etc., from which reproductions are made, were brought from Italy by the late Stanford White some years before the Italian authorities prohibited the exportation of antiques."

It would seem, then, that our pottery makers are justified, in the absence of local



WELL-DESIGNED TERRA COTTA PLANT JAR.

contemporary achievement, in drawing their inspiration from ancient and foreign sources and duplicating what seem to them the most beautiful of the old designs. But in selecting such designs, surely the most appropriate for American gardens are those which do not insist too strongly upon their classic origin or portray a history and mythology remote from the lives and thoughts of modern people. Rather, we think, the simpler forms and decorations should be chosen, those which all nationalities and ages can share—the well-proportioned columns, jars and vases of graceful outlines, ornaments in carving or relief of natural or conventionalized leaves and flowers. These will be welcome in almost any formal or semi-formal garden, and if well placed will harmonize with the surrounding foliage and blossoms of trees, vines, shrubs and flowering plants, giving to the outdoor spaces those subtle architectural touches which link a garden so pleasingly to the house itself.

Believing, therefore, that the more unpretentious our garden pottery is, the more at home it will look in the gardens of today, we have selected for reproduction here

BEAUTY IN THE BACKYARD

a number of designs which seem the least ornate, and which, for their beauty of proportion and the quality of decoration they carry, deserve a place among the good

things of garden furniture.

The two illustrations shown here of vases made by the Atlantic Garden Pottery Company are simple and effective in design. This pottery is much harder and closer in composition than ordinary earthenware, and is very durable. In addition to the usual red it comes in a variety of different colors and textures, and as the colors are thoroughly incorporated with the "body" at a very high temperature (2,300 degrees Fahrenheit) they are equally enduring and do not fade, both the pottery and color being unimpaired by exposure to severe climatic conditions.

Among the tones used in this Atlantic pottery are two glaze colors-marble white and antique green. The first is smooth, impervious and slightly lustrous, being similar in texture to smooth but unpolished marble. The white has a faint cream tone in it and is most appropriate for use in a formal garden. The antique green, which has a smooth surface, varies from dark green to deep bronze. Its restful tones are suitable for either house or garden. There is also Colonial yellow, similar in texture to smooth limestone, and especially suitable for a formal or informal garden or for the house where a yellow color scheme is used. Pompeian red is another shade in which this pottery comes. This is a rather odd, warm, cheerful red which harmonizes with brick walls and walks in an old-fashioned garden and could be used with good effect near the brick hearth and open fireplace in the house. Its surface resembles that of smooth sandstone. Limestone gray is also used-a soft tone suggesting the mellowness of time and contrasting well with green and brighter colors in the garden.

The products of the Erkins Studios also show examples of the satisfying results obtained by carefully restrained design. This work comes in stone, marble and Pompeian stone, the latter being a cement composition resembling real stone and colored usually in gray and cream. Here also the source of most of the designs is European. Many of the pieces are actual replicas of garden fittings found in Italy and the famous museums of the Continent, and where a direct copy has not been possible the work is based

on foreign models.

BEAUTY IN THE BACK-YARD: BY KATHERINE VER-DERY

HE fact that the windows of the city florists display in lavish abundance narcissi, daffodils, sweet peas and primulas, while blizzards rage without; that fruiterers present peaches and strawberries to fur-clad customers, is a condition of affairs not without its drawbacks. For by it is lost that enthusiasm with which the first crocus is greeted in the country, and the zest with which is devoured the early strawberry when eaten, warm and gritty, in the sunny patch.

It is ever the flower and the fruit whose seed we have planted and whose growth we have patiently watched and tended, that give the keenest enjoyment. And in the matter of flowers, at least, the city house-holder may share the pleasure of his out-of-town neighbor, by the expenditure of a few dollars and a little time and thought.

Twenty-five years ago the New York City backyard was often a thing of beauty. I remember such was the case in my grandmother's tiny yard in West 22nd Street. The lot was only eighteen feet wide, yet the backyard held its central grass plot, and a well-filled border of bloom two feet wide, running around three sides of the yard. There the graceful bleeding heart hung its long pink sprays, and mignonette and heliotrope and gay geraniums stood guard over pansies and forget-me-nots.

And this garden was not alone, for neighbors on both sides, to the ends of the block, possessed equally blossoming patches, making quite an enchanting chain of little gar-

dens.

Nowadays one may look out of the back windows of many city residences to see only a line of asphalt enclosures, whose colorless monotony is unrelieved except on wash days, when perhaps pink or blue pajamas may lend a note of gaiety to the scene.

Today the almost universal exodus from town, which at the latest only awaits the closing of the children's school, makes less necessary the cultivation of the few feet of city soil, than formerly, when people—even people with children—remained in town during much of the summer. Therefore it is chiefly the early spring and late fall garden that I would urge, but that most em-

BEAUTY IN THE BACKYARD

phatically, feeling sure the experiment will

amply reward those who try it.

If the asphalt has not been allowed to encroach on the old-time grass plot and border, the revival of the garden is a simple matter. In the early fall a little commercial fertilizer spaded well into the border, and sprinkled lightly over the grass plot, and this last resown, will prepare the

garden for planting.

A number of roots of ampelopis should be set close against the fence at the back and sides. This vine is of quick growth and is especially beautiful in spring and fall. It will ultimately cover the usually unsightly fence, and makes a charming background. Two or three forsythia shrubs may be planted at the corners of the border, as they produce a shower of dainty golden

blossoms in April.

The planting of all bulbs for spring bloom should be done during the preceding October and November, up to frost. should be planted to a depth of twice their own diameter, and from four to six inches apart according to their size. They should not come in touch with new fertilizer, therefore put a little sand (bird sand if no other is convenient) in each hole before placing the bulb. The best effect is gained by planting in clusters of a kind rather than in straight rows. The front edge of the bed should have the low-growing crocuses and snowdrops, and Scilla sibirica, mingled with plants of hardy yellow English primroses, which last are far too little grown in this country, but are to be had from at least one dealer on this side of the Atlantic. This collection will bloom from March through April. Back of them should be hyacinths. the single ones being far more satisfactory than the double ones; and in groups of eight or ten each, narcissi and daffodils, and the earliest varieties of tulips, such as the pink Cottage Maid, the red and the white Pottebakker, and the yellow Canary Bird.

Gardening catalogues, which all dealers gladly send on application, give accurate descriptions of color and time of bloom, and the varieties may be thereby selected according to taste and the time at which it is desired to have the best effect in the

garden.

If the house is to be closed, say from the middle of May to early in October, the fall garden of the backyard has to fight against odds. But even so, plants of the latest blooming hardy chrysanthemums, set

out in the spring will usually be waving shaggy heads of welcome on one's return to town, and will receive in turn a more genuine thrill of appreciation than will their far larger and handsomer hothouse fellows in

the windows of the florist.

Marigolds started in March from seed in a box in a sunny window in the house, and the little plants set out the latter part of April, will usually bloom gallantly in October and early November even if they have received no attention save that given them by Nature during the summer. If a caretaker is left in the house and can be persuaded to water the beds from time to time, much better results will of course be ob-

And if it be the fate of the man of the family to remain alone in the city, and his taste turns at all toward horticulture, the small patch of earth may become for him a rival of roof garden and club. In this case, space must be saved for midsummer flowers as well as bulbs and autumn plants. And between week-end dashes to family and green fields, he may find relaxation and pleasure for an hour or two in the late afternoons, in the youthful sport of playing the hose, in feeling and smelling the good brown loam, in watching the miraculous unfolding of bud and leaf-in short, in thus "returning to the soil," even if it be but the handful of soil of a city backyard.

RURAL BETTERMENT CON-FERENCE

ITIZENS of Massachusetts who are interested in the betterment of rural communities were given an opportunity to study the subject in a practical way at the third annual conference of rural community leaders which was held during July at the Massachusetts Agricultural Col-The conference was held under the direction of Professor William B. Hurd. head of the extension service at the college, and included speeches by prominent men and women, technical and general discussions, and many exhibits. The work was divided into ten sections: Clergymen's, agricultural education, librarians', civic betterment, sanitation of rural communities, county work of Young Men's Christian Association, county work of Young Women's Christian Association, home makers', rural play and recreation and town administration.

PHOTOGRAPHY AS AN AID TO EDUCATION

HOW PHOTOGRAPHY MIGHT ADD TO THE EFFICIENCY AND JOY OF SCHOOL LIFE

MONG the high-school teachers I have known was one who taught a class in general history—a kind, elderly woman who had gathered a good deal of wisdom about many things. Through her we acquired a little historical information, useful and otherwise, most of which we have since forgotten; but there was one point that I shall always remember. She gave us a motto which she said embodied the true meaning and value of all education. And that motto was:

"Not facts, but the search for facts."

At the time we realized only vaguely what the words meant, but in after years they came back to some of us, and helped us to understand a little better the meaning, not only of education, but of life.

The same truth, in other forms, perhaps, is coming home to many of our parents and teachers and professors, and bids fair to bring about before very long a radical change in our educational methods. are beginning to see that we have been handicapping rather than helping our young people by cramming their plastic minds with a lot of unrelated facts that have little or no bearing upon their future years, and which, instead of fitting them to do useful work and earn their own living, more often than not breed in them a distaste for work of any kind. We are beginning to discover that the right way to train them to become useful, healthy, happy citizens is to encourage them to develop their own faculties, their own powers of judgment, discrimination and initiative, so that they may be able to cope afterward with the harder problems of life. In other words, to let them gain their knowledge not from facts, but through the search for facts.

One of the many ways in which we can do this is by letting the children get their information at first hand wherever it is possible, instead of indirectly through text books and class recitals; by letting them go straight to the source of supply-and that is nature—instead of having the stream of knowledge filtered, boiled, aerated, bottled up and delivered to their more or less unwilling minds in a state of hygienic but insipid and uninspiring perfection, by taking them right to the spot where all the great scientists, all the men of art and skill and wisdom gain their knowledge, and letting them, with the help and light of past knowledge, sort out, classify, correlate and arrange their facts with a view to the bearing of those facts upon their own needs,

hopes and interests.

Thus far we have given our children not only too many ready-made theories and opinions, but also too much indoor work. We have crowded them into ill-ventilated schoolrooms instead of taking them out and letting them learn their lessons in the fresh air and sunshine. In some kinds of weather and with some subjects, indoor study may be a necessity. But there are many instances in which the pupils could learn infinitely better, with greater interest and under happier, more natural conditions, if they could search for their facts out of doors. And a very practical and delightful aid to this kind of study lies in the use of a camera.

Suppose the teacher of a class in physical geography wants to demonstrate to his pupils the action of natural forces upon the surface of the earth. Instead of showing them more or less uninteresting diagrams and illustrations in a stuffy schoolroom, let him take them right out to the scene of action, where they can see nature actually at work. Let them take along a few small, easily manipulated cameras, which they have been taught previously how to handle, and let them get their own illustrations, compile their own text books. Let them study the formation of rocks, the various strata and lines of cleavage; the action of wind, rain and weather upon the soil; the work of streams and rivers, the formation of valleys and hills, of cliffs, slopes and flood plains; the making of miniature lakes and deltas; the carving and shaping, the crumbling and reconstructing of the surface of the land by the tireless forces of earth and air. Let them mark the gradual but mighty changes through which the country about their homes has passed; let them have the joy of discovering traces of the old glacial period, boulders, fragments of rock or mounds of stone that tell whole chapters of geological history. Let them take pictures of the most interesting and significant of these features, using these pictures afterward in scrap books or text books of their own, to illustrate essays or to decorate the walls of their schoolroom.

PHOTOGRAPHY AS AN AID TO EDUCATION

There are many ways, in fact, in which a camera would prove invaluable to the children-in botany class, for the study of growing things, tree forms and foliage. The various species of local flora and the characteristics of native plants through the changing seasons. Or think what interest could be found in the study, through actual photographic experiments, of the laws of pictorial composition, or the endless possibilities for beauty in tone values, in the harmonies and contrasts of light and shade, the subtle qualities of textures, the arrange-ment and balance of masses, the strength or delicacy of the myriad lines, forms, details, that go to make up the living world around us.

For those who wished to turn such experiments to practical use, the pictures of flowers and foliage, of landscape, animals or birds, could be made the basis for all kinds of applied decoration and design. The study of nature, with her wonderful variety of color and form, with her endless suggestions for the artistic use of natural things, would serve as an inspiration and a help in the beautifying of the children's environment, in the decoration of their own homes, in the devising of designs and color schemes for their rooms, their clothes, the many objects which they use every day. So they would learn, not to obey the dictates of a tyrannical fashion or copy blindly the classic periods of the past, but to work out their own artistic salvation, to gather wisdom from the woods and fields, and embody in their surroundings their own ideas of beauty and harmony.

In this way they would not only accumulate a great deal of very valuable knowledge, but would do it with genuine interest, with alert minds, with the enthusiasm of real scholars and explorers, tasting the joy and personal pride of original research instead of the dullness of mere book-learning. And in this kind of work they would be developing their own personality and facility for expression, and relating the facts which they gathered to the daily wants and pleasures of their own lives.

Moreover, it is through such methods as these that we should discover in a child the potential scientist, craftsman or artist, determining often the success of later years by such opportunity for original thought, by giving the pupil freer scope for his young powers and putting him early in touch with the great storehouse of nature,

from which all things in the last analysis must be drawn.

In using cameras in connection with out-door class work, it would not be necessary, of course, for each child to have one, as in many instances the parents might not be able to afford it, or the school might not have funds enough. Several of the children could club together for the purchase, and take turns in using the camera. As to the developing and printing, this could either be done by some outside photographer, or could be made the subject of a separate class and done by the children themselves, which would add proportionately to their technical knowledge and prove a source of endless experimental joys.

AN AWNING DOOR

FOR a barn or shop or any common building that needs a double door for an entrance, the one-piece awning door invented by one of my neighbors deserves more than passing notice.

It is simply a plain, home-made shutter of solid planks neatly put together upon a frame of heavier timbers; but instead of being hinged at the side or made to slide in the ordinary manner, it has three stout hinges that fasten it along the top to the upper casing of the doorway. A piece of the framework running through the middle extends out into the house when the door is up, and on the end is a heavy boxed weight which partly holds up the door and takes the strain off of the side braces, thus making it easier to open and close.

So well hung and well balanced is this contrivance that the inventor can raise or lower it almost with one hand, though before loosening the pegs at the side, he puts a bracing pole under the awning at the outer edge to keep it from coming down too swiftly.

EDITOR'S NOTE:—The article called "Grandmothers" which was published in the August number of The Craftsman contained the reprint of a poem by Mr. James Oppenheim. The writer wrote to us that she had full permission from Mr. Oppenheim to use this poem. Since its publication we have learned that it was originally printed in The Woman's Home Companion for May, 1909, and that credit should have been given this publication at the time of its use in The Craftsman.

"TAINTED MONEY" AND THE ROSENTHAL MURDER

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"TAINTED MONEY" AND THE ROSENTHAL MURDER

HE public and dramatic murder of Herman Rosenthal, a New York gambling-house keeper who was about to testify concerning police blackmail, became a matter of national importance when the rumor spread that the police "system" was behind the crime. Cynicism and indifference, those most ubiquitous and disheartening of all the obstacles to reform, gave place for a time at least to horror and indignation. Nor were these emotions allayed when the confession of another gambler led to the arrest of Police Lieutenant Charles Becker as the alleged instigator of Rosenthal's murder, and further confirmed the public in its suspicion of an unholy alliance for mutual gain between certain members of the police force and the professional criminals and law-breakers of New York City. Although so open and spectacular a method of eliminating an undesirable witness may be more or less peculiar to New York, probably every large city in the United States could contribute a chapter to the story of police rings that collect protection money from the vicious and the criminal. But nowhere else, presumably, do the profits from such alliances total up to as many millions of dollars as in New York. According to the statement of one of the gamblers involved in the Rosenthal case the annual tribute paid to the police by the gamblers of this city is \$2,400,000; and it will be remembered that in a magazine article published after he left office Police Commissioner Bingham estimated the city's total annual "graft" at more than \$100,000,000.

In this connection the following conversation on the subject of police graft between Mr. Frank Moss and a veteran police captain is as illuminating as it is depressing, and challenges the thoughtful attention of every American citizen. The dialogue is reported by Mr. Moss, whose long service as Assistant District Attorney and as counsel to the Lexow and Mazet investigating committees gives added significance to any

evidence he cites:

"I said to him: 'Captain, Commissioners may come and Commissioners may go, but the Old Guard seems to hang on. You are always here. Will you tell me what kind of a Commissioner you men prefer?' He

said: 'We like a nice honest gentleman who does not know that he is alive.' I said, 'Explain that.' He answered, 'He makes a good front to the public and prevents public suspicion, while the insiders do the business behind his back.' I said, 'But why do you men take this dirty money?" He said, 'Wouldn't we be fools if we didn't?' 'What do you mean by that?' I asked him. He said, 'Everybody in New York works his job, even the ministers.' I said, 'Do you believe that?' He answered, 'I know it.' 'But,' I said, 'this money is so dirty.' He answered, 'We fumigate it. It

is clean after we get it."

The evidently sincere cynicism of this police captain is the thing that here stands out with startling effect-"Everybody works his job. Wouldn't we be fools if we didn't?" At the worst this point of viewwhich is alarmingly prevalent-is born of the individual's inability to believe anybody less corrupt than himself; at best it is the result of honest bewilderment in the face of arbitrary and often insincere moral standards that public opinion contents itself with. This bewilderment disappears when we frankly recognize the economic basis of morality and test our conduct thereby. By this test our cynical police captain would learn that the man who "works" his jobthat is to say, tries to get something for nothing-makes a bad bargain. All that is healthy in our civilization is based on a system of equitable exchange. The development of our own character no less than the welfare of the community demands that we shall give as much as we receive, that we shall fairly and fully pay our way. gambler and the grafter try to evade this demand, and the result is evil beyond their imagining or understanding. In their hands "tainted money" becomes something more than a phrase—it becomes a source of moral contagion to infect and corrupt whole com-

It is not far-fetched to speak of money, which is merely a token of exchange, as partaking of the nature of the thing it stands for. Wherever money stands for what is artificial and unnecessary it is unhealthy, and the unhealthy thing, when it is guarded and made to bear fruit, produces vice and crime. Money misused is bad for the nation, and breeds fungous growths. Progress depends upon right relations between human beings. Where there is commercial interchange it must be equitable.

"TAINTED MONEY" AND THE ROSENTHAL MURDER

racy cannot flourish where there is unfairness or dishonesty in the necessary exchange of commodities between man and The minute a man gets something for nothing an unreal and unwholesome condition is bred, whether that man is the son of wealthy parents who never forced him to work for his living, or a public servant who betrays his trust for profit. Just as what we call spirituality is merely the flowering of the physical, so true morality has its roots and its sanction in economics, and loses its bearings when it forgets its source.

Gambling is unethical, because it performs no service to the community, meets no valid need. For this reason it is demoralizing to the man who gambles, and the gambler's money is tainted money. But the taint is increased a thousandfold when that money becomes the token of official corruption, of the betraval of the people's trust by the people's servants. And because the police force of a great city is under greater and more insidious temptation than any other branch of the public service, there is here peculiar need for the steadfast and unequivocal pressure of public opinion. When any man or clique of men in the police department becomes a leech on criminals and an instigator of murder a plaguespot has developed which if not dealt with promptly may threaten the health of the nation. Even now we find an influential Berlin newspaper declaring that "today it is a question among thoughtful Americans as to how long the sap of the nation will be able to withstand the ever-increasing poison of political corruption."

And the same foreign paper makes the short-sighted assertion that "it is as impossible to cure the American police of the disease from which they are suffering as to sweep away the ocean with a broom." As a matter of fact the disease, menacing as it is, will yield speedily as soon as public opinion expresses itself with sufficient vigor. But unless the honest citizens recognize their responsibility in the matter, all the letting in of light that the present investigation promises will leave us just where other investigators of the police have left us in the Within the last thirty years there have been at least three investigations of the New York Police Department, and each time the result was little more than the ruining of a few reputations. The present proceedings, however, are taking directions which promise results more constructive and more permanent. Only indifference or cynicism on the part of the public, it seems, can now prevent a cleansing of the kettle of city politics. And when a problem is solved for one American city a long step is taken toward its solution for all.

New York's Police Commissioner, while admitting that "it is a matter of common knowledge" that gambling graft has been collected by police inspectors and others in the department, traces the trouble back through the police and through the courts to corrupt politics. The underworld, he points out, does corrupt election work for political parties which appoint the judiciary, and these judges in return for this service protect the gamblers. "Gambling," he-declares, "can exist only because the gamblers can obtain what amounts to protection from the courts." He tells of courts refusing to consider evidence in gambling cases because it had been obtained by looking through a window, instead of by being in the room where the gambling was going on; of a case thrown out because the police officer could not swear that the money involved was actually United States currency, and not counterfeit; and of instances where the department has failed to secure convictions because the policemen could not swear that the roulette wheel which was captured upon entering the premises with a warrant was the same roulette wheel upon which he had gambled. On the other hand Judge Swann tosses the blame back upon the Police Department with the assertion that when gambling cases come before the courts the police always see to it that there is a missing link somewhere in the chain of evidence. In the four and one-half years that he has sat on the General Sessions bench, says Judge Swann, the police have given evidence before him to convict only one gambler. In all the other cases some link, not missing when the District Attorney went over the evidence, would disappear when the police witnesses gave their testimony.

But the question of tracing the guilt to any individual or set of individuals, important as it is, is only incidental. For any adequate remedial action we need public opinion fully awakened to the enormity of any partnership for profit between lawbreakers and the machinery of the law, and to the monstrous nature of the evils born of such an unholy alliance. It is a situation in the face of which indifference is in-

BOOK REVIEWS

BOOK REVIEWS

THE VILLAGE HOMES OF ENG-LAND: TEXT AND ILLUSTRATIONS BY SIDNEY R. JONES, WITH SOME ADDITIONAL DRAWINGS IN COLOR BY WILFRID BALL, R.E., AND JOHN FULLWOOD, R. B. A.: EDITED BY CHARLES HOLME

(The illustrations used on these pages are reproduced from "The Village Homes of England," by courtesy of John Lane Co.)

URNING the copiously illustrated pages of this delightful volume, one is struck not only by the picturesqueness of the old village homes of England, but by the utter lack of stereotypedness which is one of their most salient characteristics. To American eyes, accustomed and resigned to the monotonous repetition that brands our town and suburban architecture, and the desolation that looks out from most of our villages and rural settlements, these glimpses of old-country dwellings hold strangely refreshing qualities.

There is always, of course, the natural sentiment which draws our hearts toward the little crooked streets, the rambling, thatch-roofed cottages and sheltered gardens of the motherland, where perhaps our predecessors lived out their simple, wellfilled lives before their children crossed the Atlantic to find a new home and found a new nation. But apart from this, there is something about the material and spiritual aspect of these unpretentious little groups of buildings that appeals to our sense of architectural and æsthetic fitness. Each one seems so essentially a home, a place for the warmth and strength of real life and work, love and laughter; a place for little children to play happily, for grown folks to work sturdily and well, for old people to grow old gently and beautifully. Each house seems to have been built and added to and repaired always for some definite individual need. There is no sign of commercialism, nor is there any affectation in decoration or form. The atmosphere is full of the historic and the human; the quaintness and originality are merely the result—usually unpremeditated—of a practical though somewhat primitive use of local materials in a simple but unique way. The spirit of romance that lurks in the irregularly built, ivy-covered walls, that hides behind the little wicket gates and



OLD STONE COTTAGES OF SOMERSETSHIRE, ENGLAND, FULL OF A WILD, RUGGED, PICTURESQUE BEAUTY.



OLD COTTAGES OF LYDDINGTON, RUTLAND, ENG. BUILT OF STONE WITH OUR ROCKY Mountains, OUR GABLE ENDS TO THE ROAD, AND FINISHED WITH THATCHED ROOFS. Sierras, our national parks, our

latticed dormers and peeps at us from the shadowy recesses of old cottage doorways -this, in all probability, was not intentionally captured by the builders of those early generations; it was rather the inevitable result of their honest efforts, the natural working-out, in the labor of their hands, of the spirit of unconscious poetry that filled the so-called commonplace of their lives. They lived near to Nature, close to the source of things; simple duties and simple thoughts were theirs. And so the homes which they built or which others built for them were likewise free from the elaboration that marks the architecture of a more complex social state. They retain a freshness and an originality of expression that the modern builder would find it hard to equal. And one asks, instinctively: "When will the village people of America build homes as full of human meaning and structural beauty as those which their ancestors built long ago in the quiet country places of the Old World?" (Published by John Lane Company, New York. pages. Profusely illustrated. Price \$2.50 net, postage 25 cents.)

THE YOSEMITE: BY JOHN MUIR

HE work of John Muir is familiar to many readers of THE CRAFTSMAN who may recall the article which we published about him some time ago, and they will welcome, with the rest of his admirers, this his latest book. Aside from the interest of the text, which will delight the heart of every Yosemite lover, the volume is rich in photographic illustrations of the vaileys and peaks, the woods and lakes of that wonderful region. And-most unusual and practical feature in a traveler's book-there are also maps for further enlightenment which will be appreciated equally by those who know and those who do not know the country.

How much John Muir's achievements mean to us has been well expressed by one critic, who says. "The name of this Scotchman will forever be associated with our California, our Rocky Mountains, our

great forests and our glaciers, and that is stately company. As a trained naturalist and scientific explorer he has discovered, as a literary artist of poetic insight and imagination he has described for all coming time, as a public-spirited American he has ably helped to save from spoliation and destruction, many of the most marvelous natural features of our national domain. From travels in Russia, Siberia, Manchuria, India, Australia and New Zealand, he comes back to our Pacific Coast-the Atlantic is far too tame an affair—to probe anew its great secrets, to preach to us its uplifting gospels, to daze us with its unrevealed grandeurs, to inspire us with its undreamed of possibilities." (Published by The Century Co., New York. pages. Profusely illustrated. Price \$2.40 net. Postage 16 cents.)

GOD AND DEMOCRACY: BY FRANK CRANE

FRANK CRANE has a habit of putting big things into small space, and in the present instance he has done this most effectively. From the title of this vigorous

BOOK REVIEWS



AN OLD COTTAGE IN TRENT, DORSETSHIRE, SHOWING THE GOTHIC SPIRIT IN WINDOWS AND DOORS.

little book one can judge of the significance of its contents, and the directness of their bearing upon the change which is taking place in our conception of divinity and in our ideals of government and social justice. The change is a gradual and frequently a painful one, for as Crane says, "The approach to truth is a slow process. It is one thing to have a truth told you; it is quite another thing to realize it, to get it ground into your whole being and to have it saturate your subconsciousness."

Since, in some cases, the best way to convey the gist of a book is to borrow the author's own language, we can hardly do better than add another quotation. "The better than add another quotation. "The modern, novel conception of God," states Mr. Crane, "is that of the Universal Servant and not that of the Universal Ruler. This rests upon the discovery that the greatest thing in the world is to serve, and that ruling is not necessarily great; on the contrary, is usually small business, and only becomes great when it is a means of Service." Moreover, he says, "The true oneness of a people depends upon the spirit in them, and not upon the power over them. This new conception is called Democracy. Its basis is the mind of the whole people. It is humanity doing things for itself, and not having things done for it." This is

wisdom and "straight talk," and a book of this kind can do much toward urging us onward to our democratic goal. (Published by Forbes and Company, Chicago. 72 pages. Price 50 cents.)

IN VIVID GARDENS: BY MAR-GUERITE WILKINSON

OMEN'S souls—these are the "vivid gardens" in which the author of this slender volume of verses has sought and found her inspiration. And to those who are already familiar with the contributions by Mrs. Wilkinson which have appeared so often in The Crafts—Man, we need only say that the present collection is characteristic of her work.

Aside from their poetic beauty, the verses possess a dignity, wholesomeness and outspoken valiance that carry conviction. Sincerity is their dominant note; they are the utterance of one who has heard "the quiet but far-reaching voice of Truth." they are more than an individual expression; they are essentially the cry of the modern woman, the woman who today is finding herself, morally, intellectually, physically, and who is preparing to take her rightful place beside her mate in the world's work and happiness. Earnestly and bravely this woman poet has sung, and in her lines one feels not only the tragedy of her sex's primitive and historic bondage and the pathos of its indifference or futile resentment, but also the fine prophetic ring of a soul that heralds the dawn of a freer, nobler womanhood and a cleaner manhood that shall mold together, in strength and joy, the future of the race. (Published by Sherman, French & Company, Boston. 72 pages. Price \$1.00 net.)



A THATCHED-ROOF COTTAGE IN SOMERSETSHIRE, EMG-LAND, WITH GOTHIC DOORWAY.

